PUBLIC HEALTH REPORTS

VOL. 53 OCTOBER 7, 1938 NO. 40

REPORT OF TWO CASES OF ROCKY MOUNTAIN SPOTTED FEVER IN OHIO [1]

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During the summer of 1937, two patients with Rocky Mountain spotted fever were seen in Cincinnati. As far as we can learn, this is the first description of this disease in Ohio.

CASE NO. 1

A 9-year-old white girl, who resided in Lebanon, Ohio, visited a farm near Marathon, Ohio, from July 14 to July 21, 1937. There were tick-infested dogs on this farm, and ticks were picked from the skin of the patient on several occasions during her stay there. An engorged tick was removed from the lobe of her right ear the morning after she returned from the farm to her home in Lebanon. Three days later, she developed moderate malaise. On the fifth day after her return, she was acutely ill with headache, fever, anorexia, and vomiting. These symptoms improved slightly, and on the seventh day after return an eruption was noticed on the skin of her neck and in both axillae. For a few days, just preceding admission to the hospital, the patient's condition had gradually become worse. She suffered from soreness in her back and legs, severe headache, high fever, anorexia, epistaxis, difficulty in swallowing, and obstinate constipation. She also had diffuse abdominal pain which became so severe that appendicitis was suspected. The referring physician, Dr. Brewer, of Lebanon, suggested a diagnosis of Rocky Mountain spotted fever because ot the history of tick bites and the recent newspaper publicity given the other patient reported later in this communication.

On admission to the Children's Hospital the patient was acutely ill and drowsy, but was not in pain nor suffering from respiratory distress. She showed a generalized dusky macular eruption, most intense on the extensor surfaces of the extremities, but also present at the hair

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margins, on the neck, and along the mandible to a more marked degree than on other skin areas. After application of a tourniquet for venepuncture, the eruption became distinctly petechial below the level of constriction, and the lesions were so numerous as to be confluent. Petechiae appeared on the palms and under the finger nails. The pharynx was intensely injected and there was a petechial enanthem on the soft palate. There were grayish areas of exudate varying in size from that of a pin head to 5 mm in diameter on the buccal mucosa. The ear drums were moderately injected. There was marked cutaneous hyperesthesia. The occipital and cervical lymph nodes were enlarged to the size of a pea. The spleen was palpable just below the left costal margin. There was moderate diffuse abdominal tenderness without localizing signs. There was some stiffness of the neck and a positive Kernig's sign. A spinal tap delivered a clear fluid under 130 mm pressure, which gave a two plus Pandy reaction and contained two cells. The white blood cell count was 10,400, with 88 percent polymorphonuclear neutrophiles, and 12 percent lymphocytes. The red cell count was 5,040,000. There were 14.6 gm of hemoglobin per 100 cc of blood.

The temperature varied from 102° F. on admission to 106.5° at death, with the pulse correspondingly high, between 140 and 160. The heart sounds were of good quality until late in the course of the disease, and no murmurs developed. Respirations increased from 30 on admission to 65 at death. The petechial rash became increasingly extensive and dense, involving all skin areas.

On her third hospital day (August 4, 1937), the patient's condition became much worse and two small transfusions were given. Fluids were given by parenteral administration. The temperature rose to 106° F., the respirations increased to 65 and were stertorous in character, and the patient entered a state of coma from which she could not be aroused. In general, she presented the picture of severe cerebral edema. Dehydrating measures were then given without response, and she died 14 days after she had returned to her home from the farm.

A post-mortem spinal tap delivered a clear fluid with a two plus Pandy reaction, and 60 cells, most of which were polymorphonuclear leucocytes. A necropsy examination shortly after death revealed a large, unusually blue, mushy spleen. The liver was enlarged and yellow and presented a grossly toxic appearance.

Agglutination reactions.—A blood specimen taken at the time of admission was negative for agglutinins for *Eberthella typhi*, *Salmonella paratyphi* A and B, *Brucella abortus* and *Proteus* OX 19. Another blood specimen was obtained on the third day after admission to the hospital. This was tested by Dr. Lee Foshay for agglutinins for *Proteus* OX 19 and the same procedure was carried out in the labora-

tory of the Children's Hospital. Both laboratories reported complete agglutination in the 1:640 dilution and partial agglutination in the 1:1280 dilution.

Animal experiments—Animals injected with patient's blood.—Blood was obtained for injection into animals shortly before the patient died. Three guinea pigs were inoculated intraperitoneally with this blood, and two guinea pigs and one monkey (*Macacus rhesus*) were injected with a saline suspension of spleen obtained at necropsy. All of these guinea pigs developed febrile reactions consistent with spotted fever after incubation periods varying from 5 to 11 days, the animals injected with splenic emulsion showing the shortest incubation periods. The monkey failed to show signs of infection. From the blood of one of the guinea pigs inoculated with spleen suspension, a strain of spotted fever was recovered. This strain was maintained in guinea pigs for 10 months, during which time a total of 360 guinea pigs was used. Clinically the picture produced in guinea pigs by this strain did not vary materially from that given by Badger in his description of the reactions produced by the strains isolated in Virginia in 1930 (*1*). The fatality rate in guinea pigs in Badger's strains was about 25 percent, while infection with the Cincinnati strain resulted in death in about 8 percent.

Histological examination, by Dr. R. D. Lillie, of the National Institute of Health, of sections of the brain in five out of eight guinea pigs, showed the characteristic picture associated with typhus and spotted fever with the distribution described by Lillie for spotted fever (*2*). The pathological findings in the remaining three guinea pigs were inconclusive.

The Cincinnati strain produced fever in each of six rabbits inoculated followed by a positive agglutination of *Proteus* OX 19 in the 1:320 dilution in one rabbit. Two of the rabbits died early in the disease and the sera of the remaining three did not produce agglutination in titers above 1:20.

Of two monkeys (*Macacus rhesus*) inoculated, one remained well and the second developed a fever and rash, and died on the sixth day from onset of fever. The rash in this animal closely resembled that previously described in monkeys infected with spotted fever. The Weil-Felix test was not performed on the serum of this monkey. Complete cross immunity was found to exist between the Cincinnati strain and a virulent strain of spotted fever originally isolated in Montana.

CASE NO. 2

The second patient was a white boy, aged 2½ years, who became ill on July 4, 1937, with fever, vomiting, and marked irritability. On July 6 he complained of a frontal headache, and a physician found

an otitis media on the left side. A faint rash was noticed for the first time on the extremities and buttocks on July 6, and there was the complaint of pain in the back and feet. On July 8 the rash was noticed on the face in addition to the extremities.

The patient was admitted to the contagious division of the Cincinnati General Hospital on July 10 with a temperature of 104° F., marked restlessness, and a macular-papular rash covering the face, trunk, and extremities. Most of the lesions were discrete, but many had coalesced into areas measuring about 2 cm in diameter. Some of these areas were bright red, but many had taken on a brownish coppery cast, as they had faded. There were numerous petechial lesions along the hair line. The bright red lesions faded when pressure was applied but returned as soon as released. Lesions were also present on the palms and soles. The pharynx was injected but no enanthem was observed. There was no stiffness of the neck and the Brudzinski sign was negative. There was no generalized glandular adenopathy at that time.

On July 11 the patient was still acutely ill with a continuous high fever. The rash had disappeared somewhat from the face, but it was more pronounced and more petechial in character over the upper extremities. The spleen was palpable at this time about one finger's breadth below the costal margin. The bleeding time was 2 minutes, and the clot retracted normally. The Kahn test was negative. The blood serum of the patient did not contain agglutinins for *Eberthella typhi*, *Salmonella paratyphi* A or B, or *Brucella abortus*. Kernig's sign was slightly suggestive on this day, and a spinal puncture was done but the fluid was entirely normal.

A Weil-Felix reaction test, done by Dr. Lee Foshay on July 12, was negative; *Proteus* OX 19 was used as the antigen.

On July 16, the mother offered the information that the patient had a pet dog which was infested with ticks, some of which had been picked from the patient's neck at various times.

A second Weil-Felix reaction was performed on July 17 and showed complete agglutination in the 1:320 dilution and partial agglutination in the 1:640 dilution. On third test, on July 20, the Weil-Felix reaction was complete at 1:640, partial at 1:1,280, and slight at 1:2,560.

During the first 10 days that the patient was in the hospital, three blood cultures were taken, all of which remained negative.

This patient's condition remained about the same until July 20, when the temperature began to decline, the rash to disappear, and the patient showed signs of slight improvement. During the following 10 days the patient's condition improved satisfactorily and he was discharged from the hospital on July 30.

SUMMARY

The clinical courses are presented of two patients who had histories of being bitten by ticks, and who later developed extensive generalized macular-papular-petechial rashes which also involved the palms in both patients and the soles in one. Both patients developed definite Weil-Felix agglutination reactions. One patient died.

A strain isolated from the fatal case was proved to be Rocky Mountain spotted fever by studies in laboratory animals.

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A SIMPLE METHOD OF CONCENTRATING VITAMIN E*

By C. G. Mackenzie, *Assistant Chemist, U. S. Public Health Service,* Julia B. Mackenzie, and E. V. McCollum

Despite the isolation of three compounds possessing vitamin E activity (*1*, *2*), no simple methods exist for preparing potent concentrates. Where the use of a pure substance is not practicable or essential, a rapid and efficient method of concentrating the vitamin should be helpful. The procedure used by Evans, Emerson, and Emerson (*1*), involving the treatment of the unsaponifiable fraction of wheat germ oil with a series of solvents, resulted in a concentrate potent in a 10-mg dose. A concentrate from the same source, active at 10 mg, was prepared by Olcott and Mattill (*3*) by the use of solvents and fractional distillation. Removal of the acetone insoluble material at −80° C. increased the potency to 5 mg. Drummond, Singer, and Macwalter (*4*), after removing the bulk of sterols from the unsaponifiable fraction of wheat germ oil by cooling in methanol to −25° C. and preparing an aluminum hydroxide chromatogram, obtained a fraction active at 4 to 21 mg. Two additional adsorptions increased the activity to 2.1 mg. The method described here, a simplification of these procedures, preserves most of the activity present in the unsaponifiable lipids of wheat germ oil and gives a concentrate effective at 3 to 7.5 mg.

METHOD

The unsaponifiable material from 200 gm of wheat germ oil is dissolved in the minimum amount of boiling C. P. anhydrous methanol (usually 350 to 400 cc). Slow crystallization from this solution is

*From the Biochemical Laboratory, School of Hygiene and Public Health, The Johns Hopkins University, in cooperation with the United States Public Health Service.

effected by leaving the reflux apparatus and water bath on the hot plate until room temperature is reached. The mixture is then stored overnight in the refrigerator at 8° C. The precipitate is removed by filtering under reduced pressure through a Jena fritted glass filter funnel (No. 3 porosity), the plate of which has been chilled by contact with a little dry ice. The filtrate is removed and the precipitate washed white with two small portions of methanol cooled to 8° C. The filtrate and the combined washings, kept in separate flasks, are packed in dry ice overnight. The waxy orange precipitate formed in the filtrate is removed by filtering through the Jena funnel, the plate of which is kept covered with powdered dry ice throughout the operation. The funnel is covered with a watch glass except when the extract, which is kept packed in dry ice, is being added. When all of the methanol has been filtered off, the precipitate is washed once with the combined washings from the 8° C. precipitation. The methanol is removed from the filtrate *in vacuo*, leaving a viscous red orange (occasionally almost black) oil. The yield is approximately 1.7 gm.

The 8° C. precipitate and the dry ice precipitate account, respectively, for about 65 percent and 15 percent of the total unsaponifiable lipids.

ASSAY

The importance of testing the oil or its unsaponifiable fraction for potency before proceeding with the concentration is well demonstrated in a recent paper by Todd, Bergel, and Work (*5*), in which the activity for a sterol-low concentrate of the unsaponifiable fraction of wheat germ oil is given as 125 mg. Preparatory to developing the method of concentration described in this paper, two sources of wheat germ oil, a commercial cold pressed oil and an oil prepared by ether extraction of wheat germ,[1] were investigated with respect to the potency of their unsaponifiable fractions. Saponification was carried out according to the method of Evans et al. (*6*). The saponification mixture was extracted five times with ether [2] and the ethereal solution washed alternately with distilled water and 0.5 N potassium hydroxide to remove all traces of soaps and fatty acids. The solution was then dried with anhydrous sodium sulfate and the ether removed *in vacuo*. The unsaponifiable fractions thus prepared were assayed by the method of Evans and Burr (*7*) on the following diet: Sucrose 55.9, casein (acid washed, cold alcohol extracted) 20, lard 8, salts No. 51 (McCollum) 6.1, dried yeast (Northwestern) 10, carotene 10 mg per kilo, and calciferol [3] 0.2 mg per kilo. In view of the results shown in table 1,

[1] Kindly furnished by Washburn-Crosby Company, Inc., Buffalo, N. Y.
[2] All chemicals used throughout are C. P.
[3] We are indebted to Dr. C. E. Bills, of Mead Johnson & Co., for the calciferol.

the unsaponifiable matter from oil prepared by ether extraction of wheat germ was used as the starting material for all concentrates.

TABLE 1.—*Vitamin E activity of the unsaponifiable fraction of wheat germ oil*

Source of unsaponifiable material	Preparation	Single dose	Living young	Dead young	Average weight per live rat
		Mg			*Gm*
"Cold pressed" wheat germ oil	A1	13	0	0	----------
	A1	25	0	0	----------
	A1	37	0	0	----------
	A1	64	6	1	4.4
	A2	64	9	0	4.2
	A2	75	0	0	----------
	A3	75	0	1	----------
	A2	80	3	0	5.3
	A3	100	2	2	4.3
"Ether extracted" wheat germ oil	B1	25	8	0	----------
	B1	25	5	0	5.8
	B2	25	9	0	5.1
	B2	25	4	0	6.5
	B1	50	4	1	5.5
	B1	100	6	0	5.7

Six preparations of the concentrate were assayed on second generation E-deficient female rats, the offspring of animals that had received a single dose of unsaponifiable matter. The concentrate was administered by evaporating a 5 percent ethyl ether solution on a small portion of the diet and placing this before the assay animal in a non-scatter food pan on the first day of insemination. Food was withheld until the supplement was entirely consumed. The findings presented in table 2 indicate a potency of 3 mg.

TABLE 2.—*Vitamin E activity of concentrates*

Preparation	Single dose	Living young	Dead young	Average weight per live rat	Preparation	Single dose	Living young	Dead young	Average weight per live rat
	Mg			*Gm*		*Mg*			*Gm*
E6	3	8	0	5.2	E10	5	2	0	5.0
E8	3	7	0	5.3	E10	5	7	0	5.5
E10	3	5	0	6.0	E3	10	9	0	5.5
E10	3	2	1	5.5	E3	10	[1] 1	0	5.0
E7	5	5	0	5.6	E4	10	10	0	5.5
E7	5	10	0	5.4	E4	10	8	0	5.4
E8	5	0	0	----------	E6	10	9	0	5.6
E8	5	4	1	6.6	E8	10	5	0	5.5
E8	5	8	0	6.0					

[1] On the following pregnancy, 50 days later, delivered 10 living young, average 5.1 gm.

Two of the concentrates were assayed by Dr. Karl E. Mason, of Vanderbilt University. The diet used was composed of casein (unextracted) 22, starch (uncooked) 54, lard 20, salts 4, cod liver oil 2, and yeast 8. The concentrate was administered in the same manner as described above. Dr. Mason's results, summarized in table 3, show a somewhat lower potency, 5 to 7.5 mg.

TABLE 3.—*Vitamin E activity of concentrates E8 and E9 assayed by Dr. Karl E. Mason, Vanderbilt University*

Single dose	Number of rats fed	Number of litters	Average number living young per litter	Average weight per live rat
Mg				*Gm*
2.0	3	0	----------	---------
2.5	1	0	----------	---------
3.0	[1]3	0	----------	---------
3.75	8	3	8	5.1
4.0	2	1	7	4.7
5.0	10	6	7	5.2
7.5	3	3	7.7	4.9
10.0	1	1	7	5.4

[1] An additional rat fed a 3-mg dose and autopsied on the 20th day of pregnancy showed 3 living fetuses, 1 dead fetus, and 6 resorption sites.

Since initial fertility has not been observed on either diet, and since second generation animals were used in the assays showing fertility with 3 mg, it does not seem probable that the degree of depletion was the factor responsible for the variance reported. The higher content of lard and the presence of cod liver oil in the diet used by Dr. Mason might have resulted in the partial destruction of the vitamin while on the supplement or in the animal body. However, such a number of other plausible explanations exist, as the inherent differences between strains of rats and environmental variables, that no positive conclusion can be drawn. Consideration of both sets of assays indicates a potency of 3 to 7.5 mg. The use of a standard diet for vitamin E assay would render more comparable the findings of different laboratories.

SUMMARY

A vitamin E concentrate potent at 3 to 7.5 mg has been prepared by the elimination of substances, insoluble in methanol at the temperature of dry ice, from the unsaponifiable fraction of wheat germ oil.

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CITY HEALTH OFFICERS, 1938

Directory of Those in Cities of 10,000 or More Population [1]

Directories of the city health officers in the cities of the United States having populations of 10,000 or more have been published in the Public Health Reports and reprinted as separates [2] for each year from 1916 to 1937, except 1932 and 1935, for the information of health officers and others interested in public health activities. These directories have been compiled from data furnished by the health officers. The cities included in this directory are those having populations of 10,000 or more according to the 1930 census. In some instances the county health officer serves as city health officer of cities within the county.

The asterisk (*) indicates that the officer before whose name it appears has been reported to be a "whole-time" health officer. For this purpose a "whole-time" officer is defined as "one who does not engage in the practice of medicine or in any other business, but devotes all his time to official duties."

City	Name of health officer	Official title
Alabama:		
Anniston	*John M. Kimmey, M. D., M. P. H.	County health officer.
Bessemer	*Judson D. Dowling, M. D.	Do.
Birmingham	*Judson D. Dowling, M. D.	Do.
Decatur	*L. R. Murphree, M. D., C. P. H.	Do.
Dothan	*W. T. Burkett, M. D.	Do.
Fairfield	*J. D. Dowling, M. D.	Do.
Florence	*Julius E. Dunn, M. D.	Do.
Gadsden	*C. L. Murphree, M. D.	Do.
Huntsville	*W. C. Hatchett, M. D.	Do.
Mobile	*O. L. Chason, M. D., D. P. H.	Do.
Montgomery	*J. L. Bowman, M. D.	Do.
Phenix City	*M. L. Shaddix, M. D., C. P. H.	Do.
Selma	*L. T. Lee, M. D.	Do.
Tuscaloosa	*A. A. Kirk, M. D.	Do.
Arizona:		
Phoenix	H. D. Ketcherside, M. D.	City health officer.
Tucson	*Lewis H. Howard, M. D.	Director, city-county health unit.
Arkansas:		
Blytheville	C. E. Wilson, M. D.	City health officer.
El Dorado	Fergus O. Mahony, M. D.	City-county health officer.
Fort Smith	*J. E. Johnson, M. D.	Director, county health unit.
Hot Springs	*James Foster Merritt, M. D.	Medical director.
Jonesboro	R. C. Shanlever, M. D.	Chairman, board of health.
Little Rock	*Thomas M. Fly, M. D.	City health officer.
North Little Rock	W. M. Burns, M. D.	Do.
Pine Bluff	*W. H. Bruce, M. D.	Director, county health department.
Texarkana	H. E. Burry, M. D.	City health officer.
California:		
Alameda	Leonard E. Skilling, M. D.	Health officer.
Alhambra [3]	*Samuel J. Stewart, M. D.	District health officer.
Anaheim	*Kenneth H. Sutherland, M. D.	County health officer.
Bakersfield	P. J. Cuneo, LL. B., M. D.	Health officer.
Berkeley	*Frank L. Kelly, M. D., P. H. D.	Do.
Beverly Hills	H. H. Blodgett, M. D.	City health officer.
Brawley	John Parker, M. D.	Do.
Burbank [3]	Thomas H. Ransom, M. D.	Consultant physician.
Burlingame	Matthew F. Desmond, M. D.	City health officer.
Compton [3]	*Frank E. Estes, M. D.	District health officer.
Eureka	William J. Quinn, M. D.	Health officer.
Fresno	*C. Mathewson, M. D.	City health officer.
Fullerton	*Kenneth H. Sutherland, M. D.	County health officer.
Glendale [3]	*Frank A. Wilmot, M. D., P. H D.	District health officer.
Huntington Park [3]	*George M. Malkin, M. D.	Do.
Inglewood [3]	*John W. Robinson, M. D.	Do.
Long Beach	*G. E. McDonald, M. D.	City health officer.

[1] Any errors or omissions discovered in this directory should be reported immediately to the Surgeon General, U. S. Public Health Service, Washington, D. C., in order that correction may be made in the reprint.

[2] Reprints Nos. 346, 416, 494, 539, 599, 702, 767, 876, 930, 1025, 1103, 1177, 1257, 1333, 1426, 1521, 1613, 1685, 1783, and 1888, from the Public Health Reports.

[3] Under supervision of Dr. J. L. Pomeroy, health officer of Los Angeles County, Hall of Justice, Los Angeles, Calif.

City	Name of health officer	Official title
California—Continued.		
Los Angeles	*George Parrish, M. D.	Health officer.
	*George M. Stevens, M. D.	Epidemiologist and first assistant health officer.
	*G. F. Schmelzel, M. D.	Chief deputy health officer.
	*A. L. Peterson	Executive assistant.
	Division directors:	
	*Charles F. Kiley	Chief accountant.
	*John Lambert	Secretary to health board.
	*Harry Cohn, M. D.	Director of tuberculosis.
	*Agnes M. Talcott	Director of nurses.
	*F. W. Peterson	Director of vital statistics.
	*John Carman	Chief chemist.
	Mona Bettin, M. D.	Chief bacteriologist.
	*Morris S. Siegel	Director of housing and sanitation.
	Mark Howlett	Director of milk inspection.
	*L. G. Clark, D. V. M.	Director of meat inspection.
	*H. Manning Elliott, M. D.	Director of venereal clinic (male).
	*Lola Pedlow, M. D.	Director of venereal clinic (female).
	Lyle McNeile, M. D.	Director, maternity division.
	*C. K. Stewart	Director of rodent division.
	*J. M. Cain	Director of quarantine and morbidity division.
	*L. V. Dieter, D. Phar.	Director of laboratories.
	*Lillian Kositza, M. D.	Director, child hygiene division.
Modesto	*E. F. Reamer, M. D.	County health officer.
Monrovia [3]	Jacob M. Furstman, M. D.	District health officer.
Oakland	*N. N. Ashley, M. D.	Health officer.
Ontario	Calvert L. Emmons, M. D.	City health officer.
Palo Alto	*Louis Olsen, S. E.	Health officer.
Pasadena	*Wilton L. Halverson, M. D., P. H. D.	Do.
Pomona [3]	*Madison U. Stoneman, M. D.	District health officer.
Redlands	F. H. Folkins, M. D.	Secretary, board of health.
Richmond	*Charles R. Blake, M. D.	Commissioner of health.
Riverside	*W. A. Jones, M. D.	Health officer.
Sacramento	*Herbert F. True, M. D.	Do.
Salinas	*R. M. Fortier, M. D.	County health officer.
San Bernardino	G. Stirling Landon, M. D.	City health officer.
San Diego	*Alex M. Lesem, M. D.	Director of public health.
San Francisco: Department of public health.	Health Advisory Board:	
	J. W. Ward, M. D., Chairman	
	T. J. Lenehan	
	Lawrence Arnstein	
	J. Bender	
	Frank H. McKevitt, D. D. S.	
	Langley Porter, M. D.	
	W. C. Voorsanger, M. D.	
	Consultants:	
	P. J. Hanzlik, M. D.	
	C. G. Hyde, C. E.	
	C. D. Leake, Ph. D.	
	M. S. Marshall, Ph. D.	
	K. F. Meyer, Ph. D.	
	A. C. Reed, M. D.	
	Alanson Weeks, M. D.	
	Executive Staff:	
	*J. C. Geiger, M. D.	Director of public health.
	*C. M. Wollenberg, Ph. G.	Director of institutions and superintendent, Laguna Honda Home.
	*E. E. Sappington, M. D.	Assistant Director of public health.
	*L. M. Wilbor, M. D.	Superintendent, San Francisco Hospital.
	*W. C. Van Deventer, M. D.	Resident physician and superintendent, Hassler Health Home.
	Edmund Butler, M. D.	Chief surgeon, emergency hospital service.
	*J. I. O'Dea	Chief steward, emergency hospital service.
	George H. Becker, M. D.	Director, bureau of communicable diseases.
	R. W. Burlingame, M. D.	Resident physician, isolation division.
	*P. S. Barrett, M. D.	Director, bureau of child hygiene.
	*Ernestine Schwab	Director, division of field nursing.
	Olga Bridgman, M. D.	Chief, division of mental hygiene.
	Robert Grosso, D. D. S.	Chief, division of dental hygiene.
	*T. P. Lydon	Director, bureau of food and milk.
	*J. J. Burke	Chief, food and restaurant inspection.
	*B. Q. Engle	Chief, pasteurizing plant inspection.
	*H. Schwab	Acting chief, meat and market inspection.
	*F. W. Orme, D. V. M.	Chief, abattoir inspection.
	*A. B. Crowley	Chief, industrial hygiene.

[3] Under supervision of Dr. J. L. Pomeroy, health officer of Los Angeles County, Hall of Justice, Los Angeles, Calif.

City	Name of health officer	Official title
California—Continued.		
San Francisco—Contd.	Executive Staff—Continued.	
	*H. P. Thyle	Chief, housing inspection.
	*Hubert James	Chief, plumbing inspection.
	*Kathryn B. Walker, M. D.	Bacteriologist-in-charge, division of bacteriology-serology.
	*Clinton G. Davis, Ph. G.	Senior chemist, division of chemistry.
	*P. R. Hennessy	Senior accountant.
	*R. C. Miller	Vital statistician.
San Jose	*Henry C. Brown, M. D.	Health officer.
San Leandro	Luther Michael, M. D.	District health officer.
San Mateo	J. A. Warburton, M. D.	Health officer.
Santa Ana	*Kenneth H. Sutherland, M. D.	County health officer.
Santa Barbara	*Clarence T. Roome, M. D.	Health officer.
Santa Cruz	Mahlon D. McPherson, M. D.	City health officer.
Santa Monica [3]	*William F. Reasner, M. D.	District health officer.
Santa Rosa	*E. J. Helgren, B. S. in chemistry; Ph. D., Bacteriology.	Health officer.
South Gate [3]	*George M. Malkin, M. D.	District health officer.
South Pasadena	Darius Eshoo, P. H. B., M. D.	Health officer.
Stockton	*John J. Sippy, M. D.	District health officer.
Vallejo	E. A. Peterson, M. D.	Health officer.
Ventura	*Charles R. Wylie, M. D., C. P. H.	County health officer.
Whittier [3]	*Reuben L. Kaufman, M. D., C. P. H.	District health officer.
Colorado:		
Boulder	*H. L. Morency, D. V. M.	Director of public health.
Colorado Springs	Omer Rand Gillett, Ph. B., M. D.	Health officer.
Denver	*Theodore L. Williams, M. D.	Deputy manager of health and charity.
Fort Collins	T. C. Taylor, M. D.	City physician.
Grand Junction	E. H. Munro, M. D.	Do.
Greeley	Leo L. Lux, M. D.	Do.
Pueblo	*W. E. Buck, M. D.	Chief, department of health, sanitation, and inspection.
Trinidad		
Connecticut:		
Ansonia		
Bridgeport	*Richard O'Brien Shea, M. D.	Health officer and registrar.
Bristol	Benjamin B. Robbins, M. D.	City health officer.
Danbury	Felix F. Tomaino, M. D.	Do.
Derby	Thomas F. Plunkett, M. D.	Do.
East Hartford	F. Wellington Brecker, M. D.	Do.
Enfield	Frank Forester Simonton, M. D.	Health officer.
Fairfield		
Groton	Frank W. Hewes, M. D.	Health officer.
Hamden	*George H. Joslin, M. D., P. H. D.	Superintendent of health.
Hartford	*Benjamin G. Horning, M. D., C. P. H	Health officer.
Manchester	D. C. Y. Moore, M. D.	Chairman, board of health.
Meriden	John E. Stoddard, M. D.	Health officer.
Middletown	*M. L. Palmieri, M. D., M. P. H.	Do.
Milford	Carlton Kellogg Heady, M. D.	Do.
Naugatuck		
New Britain	*Louis J. Dumont, M. D.	Do.
New Haven	*Joseph I. Linde, M. D.	Do.
New London	*Benjamin N. Pennell, D. V. S.	Do.
Norwalk		
Norwich	Harrison Gray, M. D.	Do.
Shelton	Francis I. Nettleton, Ph. B., M. D.	Commissioner of health.
Stamford	*Paul H. Brown, M. D., D. P. H.	Health commissioner.
Stonington		
Stratford	Harold T. Oesau, M. D.	Health officer.
Torrington		
Wallingford		
Waterbury	Edward J. Godfrey, M. D.	Health officer.
West Hartford	*Harry B. Smith, M. D., M. P. H.	Director of health.
West Haven	Eugene N. Cozzolino, M. D.	Health officer.
Willimantic	N. Spector, M. D.	City health officer.
Delaware:		
Wilmington	Roger Murray, M. D.	Executive secretary, board of health.
District of Columbia:		
Washington	*George C. Ruhland, M. D.	Health officer.
	*Daniel L. Seckinger, M. D.	Assistant health officer.
	*Arthur G. Cole	Chief clerk and deputy health officer.
Bureau of preventable diseases.	*James G. Cumming, M. D.	Director.
	*Carl C. Dauer, M. D.	Epidemiologist.
Medical inspection of schools.	*Joseph A. Murphy, M. D.	Director.
Food inspection	*Reid R. Ashworth, D. V. S.	Do.
Sanitary inspection	*J. Frank Butts, LL. B.	Do.
Vital statistics	*Joseph B. Irvine	Do.
Chemical laboratory	*John B. Reed	Do.
Bacteriological laboratory.	*John E. Noble	Do.

[3] Under supervision of Dr. J. L. Pomeroy, health officer of Los Angeles County, Hall of Justice, Los Angeles, Calif.

City	Name of health officer	Official title
District of Columbia—Continued.		
Serological laboratory.	*Jesse P. Porch, D. V. M.	Director.
Child welfare and hygiene service.	*Hugh J. Davis, M. D.	Do.
Tuberculosis	A. Barklie Coulter, M. D.	Do.
Nursing	*Mrs. Josephine Pittman Prescott	Do.
Maternity welfare	J. Bay Jacobs, M. D.	Medical director.
Maternal and child welfare.	*Ella Oppenheimer, M. D.	Director.
Public health instruction.	*Melvin P. Isaminger, M. D.	Do.
Public health engineering.	*Claude F. Browning	Consultant.
Florida:		
Daytona Beach	*Simon Reed	Health officer.
Gainesville		
Jacksonville	*Noble A. Upchurch, M. D.	City health officer.
Key West	William R. Warren, M. D.	Do.
Lakeland	J. D. Griffin, M. D.	Health officer and city physician.
Miami	*George N. MacDonell, M. D.	Director of public health.
Orlando	Claude Anderson, M. D.	City physician.
Pensacola	*A. L. Stebbins, M. D.	Director, county health department.
St. Augustine	Herbert E. White, M. D.	City health officer.
St. Petersburg	*Frederick F. Kumm, M. D.	Do.
Sanford	J. N. Tolar, M. D.	Do.
Tallahassee	*Leander Johnson Graves, M. D.	Director, county health unit.
Tampa	*J. R. McEachern, M. D.	City health officer.
West Palm Beach	W. E. Van Landingham, M. D.	Do.
Georgia:		
Albany	*W. D. Martin, D. V. M.	Health officer.
Athens	*Wedford W. Brown, M. D.	County commissioner of health.
Atlanta	*J. P. Kennedy, M. D.	City health officer.
Augusta	*Thomas Burdell Phinizy, M. D.	Commissioner of health.
Brunswick	*M. E. Winchester, M. D., D. P. H.	Do.
Columbus	William Edgar Mayher, M. D.	City health officer.
Decatur		
Griffin	*Thomas O. Vinson, M. D.	Health officer.
Lagrange	*S. C. Rutland, M. D.	County health officer.
Macon	*J. D. Applewhite, M. D., M. P. H.	Health officer.
Rome	*B. V. Elmore, Ph. G., M. D.	Commissioner of health.
Savannah	*Victor H. Bassett, M. D.	Health officer.
Thomasville	*Herbert F. Readling, M. D.	County commissioner of health.
Valdosta	*Gordon T. Crozier, M. D., D. P. H.	Commissioner of health.
Waycross	*George E. Atwood, M. D., D. P. H.	Do.
Idaho:		
Boise	*R. C. Taylor	City health officer.
Pocatello	*C. A. Butler	Do.
Illinois:		
Alton	C. C. Potter, M. D.	Health commissioner.
Aurora	A. S. Benson, M. D.	City health commissioner.
Belleville	*George F. Schilling	Health officer.
Berwyn	*Eugene K. Preis, M. D.	Health director.
Bloomington	Paul Kionka, M. D.	Do.
Blue Island	A. J. Roemisch, M. D.	Commissioner of health.
Brookfield		
Cairo	C. L. Weber, M. D.	Health officer.
Calumet City	Andrew Nady, M. D.	Health commissioner.
Canton		
Centralia	G. N. Welch, M. D.	Health officer.
Champaign		
Chicago	*Herman N. Bundesen, M. D.	President, board of health.
	Joel I. Connolly	Assistant to the president.
	Louise E. Schmidt, M. D.	Secretary, board of health.
	Paul F. Krueger	Chief, sanitary office.
Communicable diseases section.	Isaac D. Rawlings, M. D.	Chief of section.
Child welfare section	Henry C. Niblack, M. D.	Do.
Laboratories and research section.	John L. White, M. D.	Do.
Dairy-products section, city division.	William F. Guerin	Chief.
Administrative service section.	Henry L. Porsche	Chief clerk.
Epidemiology	William I. Fishbein, M. D.	Epidemiologist.
Syphilis and gonorrhea section.	George G. Taylor, M. D.	Director.
Maternal and infant welfare.	Edward J. Denenholz, M. D.	Do.
Chicago Heights	Hugo Long, M. D.	Health officer.
Cicero	Frank J. Pokorney, Ph. G., M. D.	Health commissioner.
Danville	C. M. Cook, M. D.	Director of health.
Decatur	*P. A. Steele, M. D.	Do.
East Moline	John Henry Fowler, M. D.	Health officer.

City	Name of health officer	Official title
Illinois—Continued.		
East St. Louis		
Elgin	*Frank V. Lee	Health officer.
Elmhurst	Frank D. Leahy, M. D.	Health commissioner.
Elmwood Park		
Evanston	*Winston H. Tucker, M. D.	Commissioner of health.
Forest Park	George J. Baumgartner, M. D.	Do.
Freeport	H. J. Stickle, M. D.	Health commissioner.
Galesburg	E. D. Wing, M. D.	Do.
Granite City	*M. E. Kirpatrick	Chairman, board of health.
Harrisburg	B. E. Montgomery, M. D.	City health physician.
Harvey	John W. Blair, M. D.	Health officer.
Highland Park	Donald E. Rossiter, M. D.	President, board of health.
Jacksonville	I. O. Hardesty, M. D.	County health officer.
Joliet	*E. J. Higgins, M. D.	Health commissioner.
Kankakee	*C. K. Smith, M. D.	Health officer.
Kewanee	*L. H. Kopp	Sanitary inspector.
La Grange	T. C. McDougal, M. D.	Health officer.
La Salle	*Arlington Ailes, M. D., C. P. H.	Health commissioner.
Lincoln	*George A. Seller	Health officer.
Mattoon	Lovell A. Neal, M. D.	City health officer.
Maywood	Charles M. Weinberg, M. D.	Health commissioner.
Melrose Park	Anthony F. Vincenti, M. D.	Commissioner of health.
Moline	C. C. Ellis, M. D.	City physician.
Mount Vernon	C. O. Hamilton, M. D.	City health officer.
Oak Park	Frank S. Needham, M. D.	Commissioner of health.
Ottawa	E. P. Hathaway, M. D.	Health officer.
Park Ridge	Randolph F. Olmsted, M. D.	Commissioner of health.
Pekin	C. G. Muehlmann, Ph. G., M. D.	Health officer.
Peoria	*S. M. Miller, M. D.	Commissioner of health.
Quincy	*H. O. Collins, M. D.	Public health officer.
Rock Island	Edward B. de Silva, M. D.	Commissioner of health.
Rockford	*N. O. Gunderson, M. D.	Do.
Springfield	H. H. Tuttle, M. D.	Superintendent of health.
Sterling	H. M. Jacobs, M. D.	Health officer.
Streator		
Urbana		
Waukegan	*Stanley J. Leckie	City health inspector.
West Frankfort	*Alta McGhee	Fire chief.
Wilmette	Martin H. Seifert, Ph. G., M. D.	Commissioner of health.
Winnetka	*Howard A. Orvis, M. D., M. S. in P. H.	Health officer.
Indiana:		
Anderson	George B. Metcalf, M. D.	Secretary, city board of health.
Bedford	*Charles Blackburn	Health commissioner.
Bloomington	Charles E. Holland, M. D.	Secretary, city board of health.
Connersville	Herman W. Smelser, M. D.	City and county health commissioner.
Crawfordsville	Fred N. Daugherty, M. D.	Secretary, board of health.
East Chicago	D. R. Johns, M. D.	Health officer.
Elkhart	A. W. Kistner, M. D.	Secretary, board of health.
Elwood	W. Merle Hoppenrath, M. D.	Do.
Evansville	Thomas F. Reitz, M. D.	Secretary, city board of health.
Fort Wayne	Karl C. Eberly, M. D.	Secretary and health commissioner.
Frankfort	Milton T. McCarty, M. D.	City health officer.
Gary	L. F. Bills, M. D.	Health commissioner.
Goshen	G. A. Whippy, M. D.	City health officer.
Hammond	H. C. Groman, Ph. B., M. D.	Secretary, board of health.
Huntington	R. F. Frost, M. D.	City health officer.
Indianapolis	*Herman G. Morgan, M. D.	Secretary, board of health
Jeffersonville	Sam Adair, M. D.	City health commissioner.
Kokomo	Will J. Martin, M. D.	Secretary, board of health.
Lafayette	Harry J. Laws, M. D.	Do.
La Porte	Jon Nelson Kelly, M. D.	Health officer.
Logansport	*Roy J. Beattie	Health inspector.
Marion	G. R. Daniels, M. D.	Secretary, board of health.
Michigan City	Norman Richard Carlson, M. D.	Secretary and health officer.
Mishawaka	Francis W. Logan, M. D.	City health officer.
Muncie	Jules F. LaDuron, M. D.	Secretary, board of health.
New Albany	John P. Gentile, M. D.	Secretary, city board of health.
New Castle	Walter M. Stout, M. D.	Secretary, board of health.
Peru	F. M. Lynn, M. D.	Do.
Richmond	Charles J. Hufnagel, M. D.	Do.
Shelbyville	Paul Tindall, M. D.	Do.
South Bend	F. R. N. Carter, M. D.	Secretary and health officer.
Terre Haute	Maurice B. Van Cleave, M. D.	Secretary, city board of health.
Vincennes	Norman E. Beckes, M. D.	Secretary, board of health.
Whiting	J. A. McCarthy, M. D.	Health commissioner.
Iowa:		
Ames	B. D. Atchley, M. D.	City health officer.
Boone	William Woodburn, M. D.	Health officer.
Burlington	*Erwin C. Sage, M. D., C. P. H.	Director county health unit.
Cedar Rapids	V. H. Hasek, M. D.	Board of health physician.
Clinton		
Council Bluffs	J. M. Moskovitz, M. D.	Health officer.
Davenport	J. H. Sunderbruch, M. D.	City physician.
Des Moines	Harry E. Ransom, M. D.	City health commissioner.

City	Name of health officer	Official title
Iowa—Continued.		
Dubuque	W. J. Connell, M. D., M. P. H.	Director of health.
Fort Dodge	*T. M. Riordan	Health and sanitary officer.
Fort Madison	J. M. Casey, M. D.	City physician.
Iowa City	E. W. Paulus, M. D.	Health officer.
Keokuk	Charles A. Dimond, M. D.	Physician to board of health.
Marshalltown	R. S. Grossman, M. D.	Health officer.
Mason City	C. M. Franchere, M. D.	City health drector.
Muscatine	Rodney M. Arey, M. D.	City health officer.
Newton	Edward A. McMurray, M. D.	City health physician.
Oskaloosa	O. J. DuBois, D. O.	Health officer.
Ottumwa		
Sioux City	*W. S. Petty, M. D.	Commissioner of public health.
Waterloo	*R. W. Driver, M. D.	City health officer.
Kansas:		
Arkansas City	P. F. Theis, M. D.	Do.
Atchison	W. K. Fast, M. D.	County health officer.
Chanute	James A. Butin, M. D.	City health officer.
Coffeyville	P. S. Townsend, M. D.	City physician.
Dodge City	X. F. Alexander, M. D.	County health officer.
Eldorado		
Emporia	*C. H. Munger, M. D.	County health officer.
Fort Scott	C. L. Mosley, M. D.	City health officer.
Hutchinson	Guy R. Walker, M. D.	City physician.
Independence	E. C. Wickersham, M. D.	City and county health officer.
Kansas City	*W. F. Lunsford, M. D., M. P. H.	City director of health.
Lawrence	James M. Mott, M. D.	Superintendent of public health.
Leavenworth	Alonzo Ray Adams, M. D.	City physician.
Manhattan	D. L. Evans, M. D.	County health officer.
Newton	W. F. Schroeder, M. D.	County physician.
Parsons	L. A. Proctor, M. D.	City health officer.
Pittsburgh	William G. Rinehart, Ph. G., M. D.	Do.
Salina	E. M. Sutton, M. D.	County health officer.
Topeka	*C. B. Stephens, M. D.	City health officer.
Wichita	J. E. Wolfe, M. D.	Director of public welfare.
Kentucky:		
Ashland	*Robert D. Higgins, M. D., M. P. H.	Director, county health department.
Bowling Green	*G. M. Wells, M. D.	County health officer.
Covington	Theodore Sallee, M. D.	City physician.
Fort Thomas	Frank H. Southgate, M. D.	Health officer.
Frankfort	R. M. Coblin, M. D.	City health officer.
Henderson	*E. W. Sigler, M. D., C. P. H.	Director, county health department.
Hopkinsville	Philip E. Haynes, M. D.	City health officer.
Lexington	*Charles M. Moore, M. D.	City health officer.
Louisville	*Hugh R. Leavell, M. D.	Director of public health.
Newport		
Owensboro	A. L. Kincheloe, M. D.	County health director.
Paducah	*R. E. Teague, M. D., C. P. H.	County health officer.
Louisiana:		
Alexandria	R. B. Wallace, M. D.	President, city board of health.
Baton Rouge	T. J. McHugh, M. D.	City health officer.
Bogalusa	J. H. Slaughter, M. D.	City physician.
Lafayette	G. A. Martin, M. D.	Do.
Lake Charles	H. B. White, M. D.	Health officer and president, board of health.
Monroe		
New Orleans	James Madison Batchelor, M. D.	Superintendent of public health.
Shreveport	*William James Sandidge, M. D., C. P. H.	Director, city-parish health unit.
Maine:		
Auburn	*Shirley J. Davis, R. N.	Health officer.
Augusta	George A. Coombs, M. D.	Do.
Bangor	*Harry D. McNeil, M. D.	Do.
Bath	Joseph I. Smith, M. D.	Do.
Biddeford	Oscar Perrault, M. D.	Do.
Lewiston	*Robert J. Wiseman, Jr., M. D.	Do.
Portland	*Thomas Tetreau, M. D.	Local health officer.
Sanford	*W. H. Kelly, M. D.	Do.
South Portland	Waldo T. Skillin, M. D.	Do.
Waterville	*Arthur R. Daviau, M. D.	Health officer.
Westbrook	Patrick H. Welch	Local health officer.
Maryland:		
Annapolis	James J. Murphy, M. D.	City health officer.
Baltimore:		
Administration	*Huntington Williams, M. D., D. P. H.	Commissioner of health.
	*William H. F. Warthen, M. D.	Assistant commissioner of health.
Bureau of vital statistics.	*W. Thurber Fales, Sc. D.	Director.
Bureau of health information.	*Dorothy Yoe Kalben	Editor.
Bureau of laboratories.	*C. LeRoy Ewing	Director.
	C. Howe Eller, M. D.	Health officer, eastern health district.
	*George W. Hemmeter, M. D.	Health officer, western health district.
	*John A. Skladowsky, M. D.	Health officer, southeastern health district.

City	Name of health officer	Official title
Maryland—Continued.		
Baltimore—Contd.		
Medical section:		
Bureau of communicable diseases.	*David H. Andrew, M. D.	Director.
Sydenham Hospital.	*Myron G. Tull, M. D.	Superintendent.
Bureau of tuberculosis.	*Phineas J. Sparer, M. D.	Director.
Bureau of venereal diseases.	*Ferdinand O. Reinhard, M. D.	Do.
Bureau of occupational diseases.	*John M. McDonald, M. D.	Do.
Bureau of child welfare.	*William K. Skilling, M. D.	Do.
Division of school hygiene.	*H. Warren Buckler, M. D.	Chief.
Dental clinics	Morris Cramer, D. D. S.	Supervisor.
Public health nursing.	*Jane B. Laib, R. N.	Director.
Sanitary section	*R. S. Craig	Do.
Bureau of milk control.	*Ivan M. Marty	Do.
Bureau of food control.	*Ferdinand A. Korff	Do.
Bureau of meat inspection.	*William Brenner, D. V. S.	Chief.
Bureau of environmental hygiene.	*William H. Schulze, Phar. D.	Director.
Cumberland	*Joseph P. Franklin, M. D.	City health officer.
Frederick	*Elmer C. Kefauver, M. D.	Do.
Hagerstown	*W. R. Cameron, M. D., C. P. H.	County health officer.
Salisbury	*S. H. Hurdle, M. D.	Do.
Massachusetts:		
Adams	James F. McLaughlin, M. D.	Board of health physician.
Amesbury	Ralph T. Frisbee	Agent, board of health.
Arlington	*John Samuel Crosby	Do.
Athol	Marion B. Sibley, M. D.	Secretary, board of health.
Attleboro	Ralph P. Kent, M. D.	Health officer.
Belmont	*Keble B. Perine	Agent, board of health.
Beverly	*Alonzo O. Woodbury	Clerk and agent, board of health.
Boston	*Henry F. R. Watts, M. D.	Health commissioner.
Divisions:	*Joseph A. Cahalan	Secretary.
Communicable diseases.	*Frederick J. Bailey, M. D.	Deputy commissioner.
Bacteriological laboratory.	*Karl R. Bailey, M. D.	Do.
Food	*P. H. Mullowney, D. V. M.	Do.
Child hygiene	Charles F. Willinsky, M. D.	Do.
Housing and sanitary.	George J. McElroy	Inspector in charge.
Tuberculosis	*George O'Donnell, M. D.	Deputy commissioner.
Vital statistics	*Joseph W. Monahan	Do.
Braintree	*Frederick C. Johnson	Health officer.
Brockton	Charles D. McCann, M. D.	Do.
Brookline	*Francis P. Denny, M. D.	Do.
Cambridge	Simon B. Kelleher, M. D.	Medical inspector.
Chelsea	*John F. Welch	Health officer.
Chicopee	*Paul G. Martel	Agent, board of health.
Clinton	*Frederick E. Murphy	Health officer.
Danvers	*Hugo Neppe	Do.
Dedham	Thomas J. Brennan	Do.
Easthampton	Charles J. Hanson, M. D.	Agent, board of health.
Everett	*William F. Hogan	Do.
Fairhaven	*W. Fred Delano	Executive officer.
Fall River	*Patrick H. Walsh, M. D.	Acting health commissioner.
Fitchburg	*Fred R. Brigham	Agent, board of health.
Framingham	*David Moxon, C. P. H.	Do.
Gardner	*W. P. O'Donnell	Do.
Gloucester	*Patrick E. Curley	Sanitary inspector.
Greenfield	*George P. Moore	Health agent and milk inspector.
Haverhill	*Frederick W. Morse	Agent, board of health.
Holyoke	*Daniel P. Hartnett, Ph. G.	Agent and health officer.
Lawrence	*Daniel J. Costello	Clerk, board of health.
Leominster	*Hugh E. Crain	Agent, board of health.
Lowell	*John J. McNamara, S. E., M. D.	Director of health and hygiene.
Lynn	James A. Dumas, M. D.	Commissioner of public health.
Malden	*May C. Welsh	Clerk and agent, board of health.
Marlboro	Charles Wade	Agent, board of health.
Medford		
Melrose	Albert E. Small, M. D.	Chairman, board of health.
Methuen	John D. Oddy, M. D.	Board of health physician.
Milford	Walter H. Chapin	Sanitary inspector.
Milton	Paul W. Kimball, M. D.	Agent, board of health.
Natick	Charles D. Colford, D. M. D.	Do.

City	Name of health officer	Official title
Massachusetts—Contd.		
Needham	*G. Donald Buckner	Health officer and milk inspector.
New Bedford	*Archibald N. Senesac, M. D	Agent and medical officer.
Newburyport	*Wilbur N. O'Brien, Ph. G	Agent, board of health.
Newton	*H. D. Chope, M. D., M. P. H	Director of public health.
North Adams	*Douglas W. Hyde, S. E	Agent, board of health.
North Attleboro	Daniel J. Kiley, M. D	Health officer.
Northampton		
Norwood	*John A. Shannon	Agent, board of health.
Peabody	*Percy F. Murray	Do.
Pittsfield	*Willys M. Monroe, M. D., M. P. H	Health commissioner.
Plymouth	William E. Curtin, M. D	Board of health physician.
Quincy	Richard M. Ash, M. D	Health commissioner.
Revere	*Patrick C. Bruno	Health officer and milk inspector.
Salem	*John J. McGrath	Agent, board of health.
Saugus	James A. Clark, M. D	Chairman, board of health.
Somerville	Frank L. Morse, M. D	Medical inspector and bacteriolegist.
Southbridge	Charles Simpson, M. D	Chairman, board of health.
Springfield	*L. J. Smith, M. D	Commissioner of public health.
Stoneham	*George A. Hinchcliffe	Health officer.
Swampscott	*Clarence W. Horton	Do.
Taunton	John I. McNamara, M. D	Chairman, board of health.
Wakefield	David Taggart	Agent and health officer.
Waltham	*Joseph T. Mulcahy	Director of public welfare.
Watertown	*Fred W. Bodge	Health officer.
Webster	Arthur D. Chartier, M. D	Board of health physician.
Wellesley	Curtis M. Hilliard	Health supervisor.
Westfield	R. M. Marr, M. D	Chairman, board of health.
West Springfield	John J. Lysaght	Agent, board of health.
Weymouth	F. L. Doucett, M. D	Clerk, board of health.
Winchester	*Maurice Dinneen	Agent, board of health.
Winthrop	*William D. Childress	Health officer.
Woburn	*Edward F. Gorman	Agent and secretary, board of health.
Worcester	*Peter O. Shea, M. D	Director of health and school hygiene.
Michigan:		
Adrian	W. S. Mackenzie, M. D	Health officer.
Alpena	Francis J. O'Donnell, M. D	City health officer.
Ann Arbor	John A. Wessinger, M. D., P. H. D	Health officer.
Battle Creek	*A. A. Hoyt, M. D	Health officer and registrar
Bay City	George W. Moore, M. D	Health officer.
Benton Harbor		
Dearborn	C. A. Christensen, M. D	Commissioner of health and sanitation.
Detroit	Board of health:	
	William M. Walker	President.
	William A. Evans, M. D	Vice president.
	Gustavus D. Pope	
	Ledru O. Geib, M. D	
	F. Gardner Legg, B. C. E	Secretary.
	Executive staff, department of health:	
	*Henry F. Vaughan, P. H. D	Commissioner.
	Bert U. Estabrook, M. D	Deputy commissioner.
	*Fred M. Meader, M. D	Deputy commissioner and director of medical services.
	*Joseph Molner, M. D., C. P. H	Director of school health service.
	*Bruce H. Douglas, M. D	Tuberculosis controller.
	Arthur P. Derby, M. D	Director of tuberculosis clinics.
	*G. M. Byington, M. D	Director of medical relations.
	*Joseph A. Kasper, M. D	Director, public health laboratory.
	*Carey P. McCord, M. D	Director, bureau of industrial hygiene.
	*F. Gardner Legg, B. C. E	Director, bureau of sanitary engineering.
	*Edward C. Schultz	Director, bureau of dairy and food inspection.
	*John F. Roehl	Director, division of special investigation.
	*Loren W. Shaffer, M. D	Director, division of social hygiene.
	*Grace Ross, R. N	Director, division of nursing.
	*Franklin H. Top, M. D., C. P. H.	Director, division of epidemiology.
	Russell W. Alles, M. D	Director, prenatal clinics.
	Bart U. Estabrook, M. D	Acting director, division of child welfare.
	*W. H. Phillips, D. D. S	Director, school dental service.
	*Gains E. Harmon, M. D	Director, medical statistics.
	*G. Arthur Blakeslee	Director, division of vital statistics.
	*Sophia Halsted, M. S	Director, division of nutrition.
	*M. Eleanor McGarvah, R. N	Legal aid.
	*Mary P. Connolly, R. N	Director, division of health education and editor "City Health."
	*Emma A. Boldt	Assistant secretary.
	*George E. Phillips	Superintendent, Herman Kiefer Hospital.
	*Henry S. Willis, M. D	Superintendent, William H. Maybury Sanitorium.

City	Name of health officer	Official title
Michigan—Continued.		
Ecorse		
Escanaba		
Ferndale		
Flint	*George Hays, M. D	Executive health officer.
Grand Rapids	*John L. Lavin, M. D	Health officer.
Grosse Pointe	*Benjamin H. Warren, M. D	Health commissioner.
Hamtramck	Stephen S. Skrzycki, M. D	Do.
Highland Park	William N. Braley, M. D	Health officer.
Holland	W. M. Tappan, M. D	Do.
Iron Mountain	J. L. Browning, M. D	Do.
Ironwood	C. C. Urquhart, M. D	City health officer.
Jackson	*E. J. MacLachlan, D. V. M	Health officer.
Kalamazoo	*I. W. Brown, M. D	Director of health and welfare.
Lansing	*E. R. Van der Slice, M. D	Director of health.
Lincoln Park	Dan R. Herkimer, M. D	Health officer.
Marquette	*Charles P. Drury, M. D	Do.
Menominee	*Lawrence A. Berg, M. D	County health officer.
Monroe	James A. Humphrey, M. D	Health officer.
Mount Clemens		
Muskegon	M. E. Stone, M. D	Do.
Muskegon Heights	O. M. LaCore, M. D	Do.
Niles	Lawrence M. Rutz, M. D	Commissioner of health.
Owosso	W. E. Ward, M. D	City health officer.
Pontiac	*Charles A. Neafie, M. D., M. S. in P. H.	Director of public health.
Port Huron	A. L. Callery, M. D	Health officer.
River Rouge	Claude A. Smith, M. D	Do.
Royal Oak		
Saginaw	*Frank A. Poole, M. D	Commissioner of public health.
Sault Ste. Marie	*David Littlejohn, M. D., P. H. D	Director of health department.
Traverse City	G. A. Holliday, D. D. S., M. D	Health officer.
Wyandotte	Earl H. Engel, M. D	Health commissioner.
Ypsilanti	Bradley M. Harris, M. D	Health officer.
Minnesota:		
Albert Lea	Donald S. Branham, M. D	Do.
Austin	H. M. Fisch, M. D	Chairman, board of health.
Brainard	R. A. Beise, M. D	Do.
Duluth	*M. McC. Fischer, M. D	Director of public health.
Faribault	Norman Lende, M. D	Health officer.
Hibbing	C. N. Harris, M. D	Health director.
Mankato	H. B. Troost, M. D	City health officer.
Minneapolis	*Francis Edward Harrington, M. D	Commissioner of health.
Rochester	T. B. Magath, M. D	Health officer.
St. Cloud	H. W. Goehrs, M. D	City physician.
St. Paul	*Robert B. J. Schoch, D. D	Chief health officer.
South St. Paul	O. S. Ely, M. D	Commissioner of health.
Virginia	R. P. Pearsall, M. D	Health officer.
Winona	William Vardeman Lindsay, M. D	Do.
Mississippi:		
Biloxi	*D. J. Williams, M. D., Gulfport	County health officer.
Clarksdale	*N. C. Knight, M. D., C. P. H	Do.
Greenville	*John W. Shackelford, M. D., M. P. H	Do.
Greenwood	*Levi A. Barnett, M. D	Do.
Gulfport	*D. J. Williams, M. D	Do.
Hattiesburg	*B. D. Blackwelder, M. D., C. P. H	Do.
Jackson	*W. E. Noblin, M. D	Do.
Laurel	*A. R. Perry, M. D., M. P. H	Do.
McComb	*T. Paul Haney, Jr., M. D., C. P. H	Do.
Meridian	*D. V. Galloway, M. D., M. P. H	Do.
Natchez	*Andrew Hedmeg, M. D	Do.
Vicksburg	*F. Michael Smith, M. D	Do.
Missouri:		
Cape Girardeau	*C. C. Summers	Health officer.
Columbia	A. W. Kampschmidt, M. D	Health commissioner.
Hannibal	*E. M. Lucke, M. D	Health officer.
Independence	F. L. Cooke, M. D	City physician and dairy inspector.
Jefferson City	James Garfield Bruce, M. D	City physician.
Joplin	V. E. Kenney, M. D	Commissioner of health and sanitation.
Kansas City	Edwin Henry Schorer, M. D., P. H. D.	Health director.
Maplewood	E. E. Tremain, M. D	Commissioner of health.
Moberly	C. C. Smith, M. D	City physician.
St. Charles	L. E. Belding, M. D	City health officer.
St. Joseph	J. M. Allaman, Ph. G., M. D	Do.
St. Louis	*Jos. F. Bredeck, M. D., P. H. D	Health commissioner.
	*H. I. Spector, M. D	Assistant health commissioner.
	*Jos. C. Willett, D. V. M	Chief of laboratories.
	*Arthur Kelley	Chief of food control.
	*Milton R. Fisher, D. V. M	Milk controller.
	*Walter E. Cook	Acting chief sanitary section.
	*Harry M. Stamm, D. D. S	Dental supervisor.
	*Clyde Kane, M. D	Acting chief, venereal clinic.
	*Mildred Sanderson, R. N	Municipal nurses' supervisor.

City	Name of health officer	Official title
Missouri—Continued.		
St. Louis—Continued.		
	*W. C. Dillard, D. V. M	Veterinary meat inspector.
	*H. V. Persells, D. V. M.	Do.
	*C. B. Michael, D. V. M	Do.
	*Downey L. Harris, M D	Rabies controller.
	*Elmer Rosenthal	Recorder of births and deaths.
	*J. Earl Smith, M. D.	Epidemiologist.
	*O. W. Noyes, D. V. M	Supervisor, meat control.
	*Arthur H. Knost, D. V. M	Veterinary milk inspector.
	*L. A. Rosner, D. V. M	Do.
Sedalia	J. E. Mitchell, M. D	County health officer.
Springfield		
University City	O. P. Hampton, Jr., M. D	Health commissioner.
Webster Grove	Carl C. Irick, M. D	Do.
Montana:		
Anaconda	J. L. O'Rourke, M. D	City physician.
Billings	A. E. Stripp, M. D	City health officer.
Butte	Frank J. Williams, M. D	Do.
Great Falls	*F. L. Watkins, M. D	City and county health officer.
Helena	*R. G. M. Ehlers, M. D	City-county health officer.
Missoula	*Frank D. Pease, M. D	Health officer.
Nebraska:		
Beatrice	John R. Leiber, M. D	City health officer.
Fremont	R. T. Van Metre, M. D	City physician.
Grand Island	J. G. Woodin, M. D	Do.
Hastings	J. W. Brown, M. D	Do.
Lincoln	*M. F. Arnhold, M. D	Superintendent of health.
Norfolk	Victor L. Siman, M. D	City physician.
North Platte	J. B. Redfield, M. D	Do.
Omaha	F. H. Kinyoun, M. D	Health commissioner.
Nevada:		
Reno	John J. Sullivan, M. D	Secretary, city board of health.
New Hampshire:		
Berlin	*Ernest O. Pederson	City health officer and milk inspector.
Claremont	William P. Prescott	Health officer.
Concord	Donald G. Barton, M. D	Sanitary officer.
Dover	*George Brennan	Health officer.
Keene	*Evan Carpenter White	Health officer and milk inspector.
Laconia	Earl J. Gage, M. D	Secretary, board of health.
Manchester	*Howard Alvertus Streeter, M. D	Health officer.
Nashua	Oswald S. Maynard, M. D	Chairman, board of health.
Portsmouth	George A. Fredick, M. D	Health officer.
Rochester	Charles E. Goodwin	Do.
New Jersey:		
Asbury Park	*B. H. Obert	Health officer and registrar of vital statistics.
Atlantic City	Samuel L. Salasin, M. D	Health officer.
Bayonne	Charles J. Larkey, M. D	Do.
Belleville	*Eugene T. Berry	Do.
Bloomfield	*Joseph C. Saile, Ph. G., D. V. S., D. O.	Do.
Bridgeton	*John G. Robbins	Do.
Burlington	*J. Margaret Warner	Secretary, board of health.
Camden	*Arthur L. Stone, M. D	Director of public health.
Carteret		
Cliffside Park		
Clifton	Lester Foye Meloney, M. D	Health officer.
Collingswood	Harold K. Eynon, M. D	Medical inspector.
Dover	*John G Taylor	Health officer.
East Orange	*F. J. Osborne	Health officer and registrar.
Elizabeth	*Louis J. Richards, S. E	Health officer.
Englewood	*Hugh B. Martin, M. S. C. E	Do.
Garfield	Charles B. Bleasby, M. D	Do.
Gloucester City	J Alonzo Beek, M. D	Do.
Hackensack	*L. Van D. Chandler	Do.
Harrison	*John T. McClure	Do.
Hawthorne	T. J. Emberton Holmes, M. D	Sanitary inspector.
Hoboken	Joseph F. X Stack, M. D	Health commissioner.
Irvington	*William S. Bailey	City health officer.
Jersey City	*Dennis J. Sullivan, M D., P. H. D	Health officer.
Kearny	*Amos Field, Jr	Do.
Linden	*Maidie E. Noe	Do.
Lodi	H. H. Brevoort, M. D	Do.
Long Branch	*R. C. Errickson	Do.
Millville	Richard Knowles, Ph. G	Do.
Montclair	*Carl T. Pomeroy, C. P. H	Do.
Morristown	*John F. Kilkenny	Health officer and plumbing inspector.
New Brunswick	E. Irving Cronk, M. D	Health officer.
Newark	*Charles V. Craster, M. D., P. H. D	Do.
Nutley	*Richard V. Fellers	Health officer and registrar of vital statistics.
Orange	W. M. Brien, M. D	Do.
Passaic	John N. Ryan, M. D	Health officer.
Paterson	*Frederick P. Lee, M. D	Do.

City	Name of health officer	Official title
New Jersey—Continued.		
Perth Amboy	*Chas. S. Thompson, D. V. S.	Health officer and registrar of vital statistics.
Phillipsburg	Wm. Dana Pursell, D. D. S., M. D.	Town physician and health officer.
Plainfield	*Andrew J. Krog	Secretary and health officer.
Pleasantville	Robert M. Grier, M. D.	Health officer.
Rahway	*Fred M. Williams	Executive officer and registrar of vital statistics.
Red Bank	Robert L. Ticehurst, D. V. M.	Sanitary inspector.
Ridgefield Park	Wm. F. Reynolds, D. V. M.	Health officer.
Ridgewood	J. F. Benjamin, M. D.	Do.
Roselle	Perry A. Proudfoot, M. D.	Do.
Rutherford	*Marine Dunn	Do.
South Orange	A. C. Benedict, M. D.	Do.
South River	A. A. Pansey, M. D.	Do.
Summit	Henry P. Dengler, M. D.	Executive and health officer.
Trenton	*Alton S. Fell, M. D.	Director of public welfare and health officer.
Union City	Grant P. Curtis, M. D.	Health officer.
West New York	*Robert S. Genduso, C. P. H.	Chief inspector.
West Orange	K. W. Thum, M. D.	Director of health.
Westfield	*Andrew Carney	Executive officer.
New Mexico:		
Albuquerque	*Julian O. Long, M. D., C. P. H.	District health officer.
Roswell	*O. E. Puckett, M. D.	Do.
Santa Fe	*F. W. Parker, Jr., M. D., C. P. H.	Do.
New York:		
Albany	*Daniel V. O'Leary, M. D.	Commissioner of health.
Amsterdam	P. J. Fitzgibbons, M. D.	Health commissioner.
Auburn	John W. Copeland, M. D.	Health officer.
Batavia	Emery F. Will, M. D.	Do.
Beacon	Charles B. Dugan, M. D.	Do.
Binghamton	Chalmer J. Longstreet, M. D.	Do.
Buffalo	*Francis E. Fronczak, LL. D., M. D., Dr. Sc., P. H.	Health commissioner.
	*Edward Durney, M. D.	Deputy health officer.
Division of child hygiene.	*Edward Durney, M. D.	Director.
Division of communicable diseases.		
Division of laboratories.		
Division of vital statistics.	*Wm. J. Winn	Registrar of vital statistics.
Division of sanitation and smoke abatement.	*Frank E. Trumble	Assistant chief inspector.
Division of food and milk inspection.	*Willard B. Diebold	Do.
J. N. Adam Memorial Hospital (Perrysburg, N. Y.).	*Horace Lo Grasso, M. D.	Superintendent.
Cohoes	Matthew J. Keough, M. D.	Commissioner of health.
Corning	Henry E. Elwood, Jr., M. D.	Health officer.
Cortland	*Merle R. French, M. D.	County commissioner of health.
Dunkirk	Edgar Bieber, M. D.	Health officer.
Elmira	Reeve B. Howland, M. D.	Do.
Endicott	J. M. Mallory, M. D.	Do.
Floral Park	Arthur E. Goldfarb, M. D.	Do.
Freeport	William H. Runcie, M. D.	County deputy health commissioner.
Fulton	L. A. Simpson, M. D.	Health officer.
Geneva	C. W. Grove, M. D.	Do.
Glen Cove	Joseph B. Conolly, M. D.	Do.
Glens Falls	*Virgil D. Selleck, M. D.	Do.
Gloversville	Alexander L. Johnson, M. D.	Do.
Hempstead	William H. Runcie, M. D.	Do.
Herkimer	James W. Graves, M. D.	Do.
Hornell	George E. Taylor, M. D.	Do.
Hudson	*Louis Van Hoesen, M. D.	Commissioner of health.
Ithaca	*Robert H. Broad, M. D.	Health officer and school physician.
Jamestown	William M. Sill, M. D.	Superintendent of public health.
Johnson City	Walter J. Farrell, M. D.	Village health officer.
Johnstown	Daniel Malcolm McMartin, M. D.	Commissioner of public health and welfare.
Kenmore	F. S. Brickell, M. D.	Health officer.
Kingston	Lester E. Sanford, M. D.	Do.
Lackawanna	Anthony S. Culkowski, M. D.	Do.
Little Falls	A. B. Santry, M. D.	Do.
Lockport	Lyman H. Wheeler, M. D.	Health officer and city physician.
Lynbrook		
Mamaroneck	M. Nicoll, Jr., M. D.	County health officer.
Massena	C. E. Elkins, M. D.	Health officer.
Middletown	*H. J. Shelley, M. D.	Do.

City	Name of health officer	Official title
New York—Continued.		
Mount Vernon	*Frank W. Shipman, M. D.	Commissioner of health.
New Rochelle	*Bertrand F. Drake, M. D., P. H. D.	City health officer.
New York	*John L. Rice, M. D.	Commissioner of health.
	*William H. Best, M. D.	Deputy commissioner of health.
	*George T. Palmer, P. H. D.	Do.
	*Sol Pincus, C. E.	Do.
Bureau:		
General administration.	*Goodhue Livingston, Jr.	Secretary.
Records	*Thomas J. Duffield	Registrar of records.
Sanitation	*John Oberwager, M. D.	Director.
Preventable diseases.	*Samuel Frant, M. D.	Epidemiologist.
Nursing	*Amelia H. Grant, R. N.	Director.
Public health education.	*Charles F. Bolduan, M. D.	Do.
Laboratories	*Ralph S. Muckenfuss, M. D.	Do.
Food and drugs	*Abraham Lichterman	Acting director.
Tuberculosis	*Herbert R. Edwards, M. D.	Director.
Social hygiene	*Theodore L. Rosenthal, M. D.	Do.
District health administration.	*Margaret W. Barnard, M. D., P. H. D.	Do.
	*Arthur I. Blau, M. D.	Assistant to the director.
	Morris L. Ogan, M. D.	Administrative assistant.
	*John B. West, M. D., M. P. H.	District health officer.
	*Sophie Rabinof, M. D.	Do.
	*Isadore Cohen, M. D.	Do.
	*Frank A. Calderone, M. D., C. P. H.	Do.
	*Max Bernstein, M. D.	Do.
	*Jacob Landes, M. D., C. P. H.	Do.
	*Jerome Meyers, M. D.	Do.
	*Louis A. Friedman, M. D.	Do.
	Joseph Dillenberg, M. D.	Medical officer in charge.
	Aaron Leifer, M. D., M. S. P. H.	Do.
	*Anna E. Ray Robinson, M. D.	District health officer.
	*Laura M. Riegelman, M. D.	Medical officer in charge.
	*James F. Morrison, M. D.	Do.
	*Leopold M. Rohr, M. D.	District health officer.
	*Jacob Rosenbluth, M. D.	Do.
	*Elwood S. Morton, M. D.	Medical officer in charge.
	*Eugene O. Chimene, M. D.	District health officer.
	*Harold H. Mitchell, M. D., C. P. H.	Do.
	*William F. Wild, M. D.	Do.
	*Robert W. Fowler, M. D.	Medical officer.
Newburgh	Anthony J. Manzella, M. D.	Health officer.
Niagara Falls	Edward E. Gillick, M. D.	Do.
North Tonawanda	Henry C. Lapp, M. D.	Do.
Ogdensburg	Frederick E. Clark, M. D.	Do.
Olean	J. A. Johnson, M. D.	Health commissioner.
Oneida	Edmund L. Finley, M. D.	Health officer.
Oneonta	Edwin Perry Hall, M. D.	Do.
Ossining		
Oswego	James E. Mansfield, M. D.	Do.
Peekskill	Douglas Barry, M. D.	Do.
Plattsburg	Leo F. Schiff, M. D.	Do.
Port Chester	Wm. J. Sheehan, M. D.	Do.
Port Jervis	G. Otto Pobe, M. D.	City health officer.
Poughkeepsie	*William H. Conger, M. D.	Health officer.
Rensselaer		
Rochester	*Arthur M. Johnson, M. D.	Do.
Rockville Centre	Bruce B. Preas, M. D.	Do.
Rome	Lewis N. Eames, M. D.	Do.
Saratoga Springs	F. J. Resseguie, M. D.	Do.
Schenectady	*Wm. C. Treder, M. D.	Commissioner of health.
Syracuse	*H. Burton Doust, M. D.	Do.
Tonawanda	Russell H. Wilcox, M. D.	Health officer.
Troy	James H. Flynn, M. D.	Commissioner of health.
Utica	*Hugh H. Shaw, M. D.	Health officer.
Valley Stream	John M. Quinn, M. D.	Do.
Watertown	George B. Van Doren, M. D.	Do.
Watervliet	C. A. Birmingham, M. D.	Do.
White Plains	*Matthias Nicoll, Jr., M. D.	County commissioner of health.
Yonkers	*Eugene F. McGillian, M. D., M. P. H.	Commissioner of health.
North Carolina:		
Asheville	*John W. Williams, M. D., C. P. H.	Health officer.
Charlotte	*G. L. Rea, M. D.	Commissioner of health.
Concord	*Daniel Greenlee Caldwell, M. D.	County health officer.
Durham	*J. H. Epperson	Superintendent of health.
Elizabeth City	Thomas Shelton McMullan, M. D.	Municipal health officer.
Fayetteville	*Malcolm T. Foster, M. D., C. P. H.	City and county health officer.
Gastonia		
Goldsboro	*Samuel B. McPheeters, M. D., C. P. H.	Director of public health.

City	Name of health officer	Official title
North Carolina—Contd.		
Greensboro	*C. Curtis Hudson, M. D	Health officer.
High Point	*R. A. Herring, M. D	Director of health.
Kinston	*Z. V. Moseley, M. D	County health officer.
New Bern	*John Sherburne Anderson, M. D., C. P. H.	Do.
Raleigh		
Rocky Mount	*J. Allen Whitaker, M. D	Superintendent, city health department.
Salisbury	*C. W. Armstrong, M. D	Health officer.
Shelby	Heyward Thompson, M. D	County health officer.
Statesville	Ross S. McElwee, M. D	County physician.
Thomasville	*G. C. Gambrell, M. D	County health officer.
Wilmington	*Avon H. Elliot, M. D	Do.
Wilson	*W. H. Anderson, M. D	Health officer.
Winston-Salem	*R. L. Carlton, M. D	City health officer.
North Dakota:		
Bismarck	Charles Albert Arneson, M. D	Do.
Fargo	*H. J. Skarshaug, M. D., C. P. H	Do.
Grand Forks	E. C. Haagensen, M. D	Do.
Minot	J. L. Devine, M. D	Do.
Ohio:		
Akron	*Melville D. Ailes, LL. B., M. D	Director of health.
Alliance	G. O. Rowland, M. D	Health commissioner.
Ashland	R. P. Bogniard, M. D	Director of public welfare.
Ashtabula	James H. Park, M. D	Health officer.
Barberton	H. A. Finefrock, M. D	Health commissioner.
Bellaire	William J. Shepard, M. D	Do.
Bucyrus	W. G. Carlisle, M. D	Do.
Cambridge	Carl M. Oshe	City health commissioner and sanitary officer.
Campbell	Edward J. Reilly, M. D	Health commissioner.
Canton	F. M. Sayre, M. D	Do.
Chillicothe	*Raymond E. Bower, Ph. B., M. D	Do.
Cincinnati	*F. K. Harder, M. D	Acting commissioner of health.
Cleveland	*Harold J. Knapp, M. D	Commissioner.
Division:		
Communicable diseases.	*T. G. Duncan, M. D	Chief.
Venereal diseases	E. J. Braun, M. D	Do.
Tuberculosis	E. P. Edwards, M. D	Do.
Child hygiene	*R. J. Ochsner, M. D	Do.
School health service.	*J. G. Smith, M. D	Do.
Food and Drug administration.	*E. B. Buchanan	Do.
Laboratories	Emerson Megrail, M. D	Consulting laboratory director.
	*Wm. H. Hay, LL. B	Chief of laboratories.
Public health nurses.	*Cora M. Templeton, R. N	Director.
Vital statistics	*Sara B. Hartley	Chief.
Cleveland Heights	*Robert Lockhart, M. D	Director of health.
Columbus	*N. C. Dysart, Ph. C., M. D	Health commissioner.
Coshocton	J. D. Lower, M. D	Do.
Cuyahoga Falls	*Roll Harrison Markwith, M. D	Commissioner of health.
Dayton	H. H. Williams, M. D	Health commissioner.
East Cleveland	George W. Stober, M. D	Director of health.
East Liverpool	John A. Murphy, M. D	Health commissioner.
Elyria	G. E. French, M. D	City health commissioner.
Euclid [4]	*L. F. Hall, M. D., Cleveland	County health commissioner.
Findlay	*Martha Laffey, R. N	Health commissioner.
Fostoria	*H. A. DeVore	Do.
Fremont	E. L. Vermilya, M. D	Do.
Garfield Heights [4]		
Hamilton	*C. J. Baldridge, B. L., M. D	Health commissioner.
Ironton	*Harry Sherwood Allen, M. D	Do.
Lakewood	Wallace J. Benner, M. D	Commissioner of health.
Lancaster	Clifford B. Snider, M. D	Do.
Lima	*Gail E. Miller, M. D	County health commissioner.
Lorain	Valloyd Adair, M. D	Health commissioner.
Mansfield	*Roy C. Rehder, M. D	Do.
Marietta	J. B. McClure, M. D	Do
Marion	M. M. Weinbaum, M. D	Do.
Martins Ferry	*John Johns, M. D	Do.
Massillon	*D. L. Fisher	Do.
Middletown	*G. D. Lummis, M. D	Do.
New Philadelphia	*Joseph Blickensderfer, M. D	Do.
Newark	William H. Knauss, M. D	Do.
Niles	W. A. Werner, M. D	Do.
Norwood	R. E. Hatfield, M. D	Do.
Painesville	*Clara Carter Wilder, R. N	Do.
Parma [4]	*L. F. Hall, M. D	County commissioner of health.

[4] Under supervision of Cuyahoga County District Board of Health, 207 Engineers Bldg., Cleveland.

City	Name of health officer	Official title
Ohio—Continued.		
Piqua	F. R. Buechner	Health commissioner.
Portsmouth	Oral D. Tatje, M. D.	Do.
Salem	R. T. Holzbach, M. D.	Do.
Sandusky	*F. M. Houghtaling, M. D.	Do.
Shaker Heights	Paul M. Spurney, M. D.	Director of health.
Springfield	*Oscar M. Craven, M. D.	Director of public health.
Steubenville	*Julius A. Pizzoferrato	City health commissioner.
Struthers	Charles Scofield, M. D.	Health commissioner.
Tiffin	J. A. Gosling, M. D.	Do.
Toledo	*Millard Charles Hanson, M. D., P. H. D.	Director of health.
Warren	M. T. Knappenberger, M. D.	Health commissioner.
Wooster	*John J. Sutter, M. D.	Do.
Xenia	*Gordon E. Savage, M. D.	County health officer.
Youngstown	W. W. Ryall, M. D.	Commissioner of health.
Zanesville	Edmund R. Brush, M. D.	Do.
Oklahoma:		
Ada	*Glen W. McDonald, M. D.	Director, city-county health unit.
Ardmore	*Richard M. Parish, M. D.	County superintendent of health.
Bartlesville	Elizabeth Chamberlin, M. D.	City superintendent of health.
Chickasha	S. O. Marrs, M. D.	City health superintendent.
Enid	R. C. Baker, M. D.	City superintendent of health.
Lawton		
McAlester	Ernest Thomas, M. D.	County superintendent of health.
Oklahoma City	*W. H. Miles, M. D.	Director of health.
Okmulgee	M. D. Carnell, M. D.	County superintendent of health.
Ponca City	*Charles Campbell Gardner, M. D.	City health director.
Sapulpa		
Seminole	Claude Starr Chambers, M. D.	City health officer.
Shawnee	T. D. Rowland, M. D.	City physician.
Tulsa	J. Jeff Billington, M. D.	Superintendent of health.
Wewoka	*George Hunter, M. D.	County superintendent of health.
Oregon:		
Astoria	*N. S. Vernon, M. D.	City health officer.
Eugene	*E. L. Gardner, M. D.	City and county health officer.
Klamath Falls	*Neil Black, M. D.	County health officer.
Medford	L. D. Inskeep, M. D.	City health officer.
Portland	*Adolph Weinzirl, M. D., C. P. H.	Do.
Salem	*Vernon A. Douglas, M. D., M. P. H.	City-county health officer.
Pennsylvania:		
Aliquippa	*J. E. Tanner	Health Officer.
Allentown	*J. Treichler Butz, D. D. S., M. D.	Do.
Altoona	*Raymond A. Herbert	Superintendent of health.
Ambridge	*Louis Herrmann	Health officer.
Arnold	Frank E. Morrison	Secretary, board of health.
Beaver Falls	*H. B. Plummer	Health officer.
Bellevue	*Mrs. G. P. Brown	Do.
Berwick	*Charles Ross	Do.
Bethlehem		
Braddock	*Samuel J. Escher	Do.
Bradford	*R. G. Vogel	Do.
Bristol	John M. Wright	Do.
Butler	*Edgar L. Geibel	Do.
Canonsburg		
Carbondale	*Arthur J. Dearie	Do.
Carlisle		
Carnegie	A. B. Lafferty	Borough clerk.
Chambersburg	*Frank J. Croft	City health officer.
Charleroi	*J. M. Hill	Health officer.
Chester	*Timothy McCarey	Do.
Clairton	*S. Arthur Carrabotta	Do.
Coatesville	Charles V. Peace, V. M. D.	Do.
Columbia		
Connellsville	*Charles H. Balsley	Do.
Conshohocken	Thomas S. White	Health officer and secretary.
Coraopolis	*D. K. Clever, M. D.	Health officer.
Dickson City	Joseph M. Malinoski	Secretary, board of health.
Donora	*Herman Lang	Health officer.
Dormont	Fred Frank	Do.
Du Bois	J. I. Brockbank, M. D.	Do.
Dunmore		
Duquesne	*Francis P. Long	Do.
Easton	R. S. Raub, M. D.	Do.
Ellwood City	*Lewis Young	Do.
Erie	*James R. Smith, M. D.	Do.
Farrell	*Ben F. Davis	Do.
Franklin		
Greensburg	*Joseph B. Cherry	Health officer and secretary.
Hanover	Nevin H. Seitz, M. D.	Secretary, board of health.
Harrisburg	John M. J. Raunick, M. D.	Health officer and director.
Hazleton	*John J. Pavlik, D. D. S.	Health officer.
Homestead		
Jeannette		

City	Name of health officer	Official title
Pennsylvania—Contd.		
Johnstown	L. L. Porch, M. D.	City physician.
Kingston	*J. F. Seward	Health officer.
Lancaster	*Benjamin F. Charles	Do.
Latrobe	W. T. Osborne	Do.
Lebanon	C. Ray Bell, Jr., M. D.	Do.
Lewistown	H. E. Fetterolf	Do.
McKeesport	*Daniel F. Marsh	Do.
McKees Rocks	*Silvio H. Baldassare	Borough health officer.
Mahanoy City	Edward S. Gately	Do.
Meadville	*John L. Laley	Do.
Monessen	*F. C. Duvall, M. D.	Do.
Mount Carmel	*Howard Zieger	Do.
Munhall	*O. E. McNaughton	Do.
Nanticoke	*Judson Abbott	Health inspector.
New Castle	William L. Steen, M. D.	Health officer.
New Kensington	*John H. Evans	Do.
Norristown	*J. C. Cassel	Do.
North Braddock	*Michael J. Pastor	Do
Oil City	*William J. Lewis	Do.
Old Forge		
Olyphant	Andrew Taras	Do.
Philadelphia:		
Department of public health.	*Wm. C. Hunsicker, M. D.	Director, department of public health.
	*Alfred F. Allman, M. D.	Assistant director, department of public health.
Bureau of health	*William J. Wolf	Secretary.
Bureau of hospitals:		
Philadelphia General Hospital, 34th and Pine Streets.	*William G. Turnbull, M. D.	Superintendent.
Philadelphia Hospital for Contagious Diseases, 2d and Lurerne Streets.	*Pascal F. Lucchesi, M. D.	Do.
Philadelphia Hospital for Mental Diseases, Byberry.	*Wilbur P. Rickert, M. D.	Do.
Phoenixville	*Russell E. Deery	Health officer.
Pittsburgh	*I. Hope Alexander, M. D.	Director.
Bureau of infectious diseases (including municipal and tuberculosis hospitals).	*P. E. Marks, M. D.	Superintendent.
Bureau of sanitation	*Leonard M. Sandston, C. E.	Do.
Bureau of child welfare.	*H. J. Benz, M. D.	Do.
Bureau of food inspection.	*Howard Patton	Do.
Bureau of smoke regulation.	H. B. Meller, C. E.	Do.
Pittston		
Plymouth	*H. G. Templeton, M. D.	Secretary, board of health.
Pottstown	*A. John Andre	Health officer.
Pottsville	*A. C. Huntzinger	Do.
Reading	*Ira J. Hain, M. D.	Do.
Scranton	Earl H. Rebhorn, M. D.	Director of public health.
Shamokin	*Frederick Zeiser	Health officer.
Sharon	*Joseph B. Hildebrand	Sanitary officer.
Shenandoah	*Charles A. Bell	Health officer.
Steelton	*E. G. Butler	Do.
Sunbury	*Carl P. Inkrote	Health officer.
Swissvale	*Samuel L. Glasgow	Do.
Tamaqua		
Taylor	E. E. Edwards, M. D.	Do.
Turtle Creek	*Manuel Emmanuel	Do.
Uniontown	*J. R. West	Do.
Vandergrift		
Warren	*Ralph N. Brown	Do.
Washington	*C. E. Houston	Do.
Waynesboro	Verne L. Snowberger	Do.
West Chester	*Warren T. Garrett	Health officer and sanitary inspector.
Wilkes-Barre	*Edward J. Pugh	Acting principal health officer.
Wilkinsburg	*J. M. Snyder	Health officer.
Williamsport	*William J. Mollenkopf	Do.
York	John D. Yeagley, M. D.	Director of public health.

City	Name of health officer	Official title
Rhode Island:		
Bristol	Matthew G. Maetozo	Health officer.
Central Falls	Omer H. Masse, M. D	Do.
Cranston	Daniel S. Latham, M. D	Superintendent of health.
Cumberland	Stephen A. Kenney, M. D	Health officer.
East Providence	W. H. T. Hamill, M. D	Do.
Newport	Edward V. Murphy, M. D	Commissioner of health.
North Providence	*Joseph Anthony St. Angelo, Ph. B., M. D.	Chief health officer.
Pawtucket	Albert L. Vandale, M. D	Superintendent of health.
Providence	*Michael J. Nestor, M. D	Do.
Warwick	*Raymond Luft, M. D	Do.
Westerly	Samuel C. Webster, Ph. G., M. D	Do.
Woonsocket	James P. O'Brien, M. D., C. P. H	District health officer.
South Carolina:		
Anderson	*E. R. Van De Grift, D. V. M	Health officer.
Charleston	*Leon Banov, M. D	Do.
Columbia	*Paul Eugene Payne, M. D	City health officer.
Florence	*George D. Heath, M. D., P. H. D	Health commissioner.
Greenville	*Irving Sydnor Barksdale, M. D	Commissioner of health.
Greenwood	*Joseph E. Brodie, M. D	City and county health officer.
Rock Hill	*S. S. Frew	City health officer.
Spartanburg	*William O. Wrightson, M. D	Director of health.
Sumter	*G. R. Kitchen, D. V. M	Health officer.
South Dakota:		
Aberdeen	J. F. Adams, M. D	City health officer.
Huron	T. J. Wood, M. D	Health inspector.
Mitchell	Earl Young, M. D	City health officer.
Rapid City	*H. D. Lien, M. D	Director, county health unit.
Sioux Falls	Emil G. Ericksen, M. D	Health officer.
Watertown	H. T. Kenney, M. D	City health officer.
Tennessee:		
Bristol	*F. L. Moore, M. D., C. P. H	County health officer.
Chattanooga	J. W. L. Cooper, M. D	Director, department of health.
Jackson	Herman Hawkins, M. D	City health officer.
Johnson City	*E. E. Carrier, M. D	Director, city health department.
Kingsport	*F. L. Moore, M. D., C. P. H	County health officer.
Knoxville	*William H. Enneis, M. D., M. P. H.	Health officer.
Memphis	*Lloyd M. Graves, M. D	Superintendent of health.
Nashville	*John Overton, M. D	City health department.
Texas:		
Abilene	Scott W. Hollis, M. D	County and city health officer.
Amarillo	*B. M. Primer, M. D., M. P. H	Director of health unit.
Austin	*George M. Decherd, M. D	Assistant city health officer.
Beaumont	W. W. Dunn, M. D	City health officer.
Big Spring	M. H. Bennett, M. D	Do.
Brownsville	Thurman A. Kinder, Jr., M. D	Do.
Brownwood	J. M. Horn, M. D	Do.
Cleburne	Joseph M. Stallcup, M. D	Do.
Corpus Christi		
Corsicana	Wm. T. Shell, Jr., M. D	Do.
Dallas	*James William Bass, M. D	Director of public health.
Del Rio	D. A. York, M. D	City health officer.
Denison	W. A. Lee, M. D	Do.
El Paso	*J. W. Tappan, M. D	Director, city-county health unit.
Fort Worth	*Arthur Heath Flickwir, M. D	Director of public health and welfare.
Galveston	Walter Kleberg, M. D	City health officer.
Greenville	John Saunders Cooper, M. D	Do.
Harlingen	Henry C. Wilson, M. D	Do.
Houston	*John W. Brown, M. D., C. P. H	Director of public health.
Laredo	A. T. Cook, M. D	City health officer.
Lubbock	J. W. Rollo, M. D	Do.
Marshall	W. H. Bennett, M. D	Do.
Palestine	John T. Humphries, M. D	City physician.
Pampa	K. L. Buckner, M. D	City health officer.
Paris	John A. Stephens, M. D	Do.
Port Arthur	Frank J. Beyt, M. D	Director of public health and welfare.
San Angelo	B. T. Brown, M. D	City health officer.
San Antonio	*W. A. King, M. D	Do.
San Benito		
Sherman	C. D. Strother, M. D	Do.
Sweetwater	*George Albert Gray, M. D	Director, county health unit.
Temple	*B. A. Stafford, Jr., M. D	Do.
Texarkana	Charles A. Smith, M. D	City health officer.
Tyler	Albert Woldert, Ph. G., M. D	Do.
Waco	*Neil L. Simpson, M. D	County health officer.
Wichita Falls	*John H. Fletcher, M. D	City health officer.
Utah:		
Ogden	Wendell Noall, M. D	City physician.
Provo	Charles M. Smith, M. D	Do.
Salt Lake City	T. J. Howells, M. D	Health commissioner.

City	Name of health officer	Official title
Vermont:		
Barre	J. J. Tomasi, M. D	City health officer.
Bennington	John David Lane, M. D	Health officer.
Burlington	Erald F. Foster, M. D	City health officer.
Rutland	Albert H. Bellerose, M. D	Health officer.
Virginia:		
Alexandria	W. Lewis Schafer, M. D	Health officer and clinician.
Charlottesville	*Robert D. Hollowell, M. D., C. P. H.	County health officer.
Danville	*R. W. Garnett, M. D	Health officer and director of public welfare.
Hopewell	*John H. Bonner, M. D	Health officer.
Lynchburg	*Mosby G. Perrow	Director of public welfare.
Newport News	*G. Colbert Tyler, M. D	Health officer.
Norfolk	*John Cary Sleet, M. D	Health commissioner.
Petersburg	Mason Romaine, M. D	Health officer.
Portsmouth	*L. H. Denny, M. D	Director of public welfare.
Richmond	*W. Brownley Foster, M. D	Director of public welfare and health officer.
Roanoke	*C. B. Ransone, M. D	Health officer.
Staunton	C. W. Rodgers, M. D	Do.
Suffolk	*Charles C. Hedges, M. D	Do.
Winchester	L. M. Allen, M. D	Do.
Washington:		
Aberdeen	B. O. Swinehart, M. D	City health officer.
Bellingham		
Bremerton	David H. Polk, M. D	Do.
Everett	J. W. Darrough, M. D	Do.
Hoquiam	H. C. Watkins, M. D	Do.
Longview		
Olympia	*Sanford P. Lehman, M. D	Do.
Port Angeles	*Leland E. Powers, M. D	County-city health officer.
Seattle	*Frank M. Carroll, M. D	Commissioner of health.
Spokane	*Ralph Hendricks, M. D	Commissioner of public affairs and health officer.
Tacoma	S. M. Creswell, M. D	Director of health.
Vancouver	*J. A. Kahl, M. D	County-city health officer.
Walla Walla	*A. E. Eyres, M. D	Director of health.
Wenatchee	*Cecil Rhodes Farghet, M. D	County-city health officer.
Yakima	*Lloyd Moffitt, M. D	Do.
West Virginia:		
Bluefield	*David B. Lepper, M. D., C. P. H	City health officer.
Charleston	*Herbert B. Wise, M. D	City health commissioner.
Clarksburg	*L. C. Goff, M. D	City health officer.
Fairmont	*Joseph Wilfrid Davis, M. D., C. P. H.	Director, county health department.
Huntington	*W. W. Strange, M. D	Medical director.
Martinsburg	*Claude A. Thomas, M. D	County health officer.
Morgantown	*Earl L. White, M. D	City health officer.
Moundsville	*W. G. C. Hill, Ph. G., M. D	County health director.
Parkersburg	*Arthur D. Knott, M. D., P. H. D	City-county health officer.
Wheeling	*Reece M. Pedicord, M. D	City-county health commissioner.
Wisconsin:		
Appleton	John C. Troxel, M. D	Health commissioner.
Ashland	C. O. Hertzman, M. D	Do.
Beloit	Richard A. Thayer, M. D	Health officer.
Cudahy	C. D. Partridge, M. D	Health commissioner.
Eau Claire	L. H. Flynn, M. D	Health officer.
Fond du Lac	*E. H. Pawsat, M. D	Health commissioner.
Green Bay	Henry S. Atkinson, M. D	Do.
Janesville	*Fred B. Welch, M. D	City health officer.
Kenosha	*G. Windesheim, M. D	Director of health.
La Crosse	*A. M. Murphy	Acting commissioner and health officer.
Madison	*F. F. Bowman, M. D	Health officer.
Manitowoc	George M. Hoffman, M. D	Health commissioner.
Marinette	J. William Boren, M. D	Do.
Milwaukee	*John P. Koehler, M. D	Commissioner of health.
	E. V. Brumbaugh, M. D	Deputy commissioner of health.
School hygiene division.	*Benjamin Lieberman, M. D	Director.
Education division	*George A. Dundon	Do.
Division of venereal diseases.	*William J. McKillip, M. D	Do.
Vital statistics	*George E. Adams	Deputy register.
Division of tuberculosis.	*George R. Ernst, M. D	Director.
Contagious disease division.	*Edward R. Krumbiegel, M. D	Do.
Division of food and sanitary inspection	*Stanley L. Pilgrim, M. D. C	Do.
Bureau of laboratories.	*R. W. Cunliffe	Do.
Division of child welfare.	*E. V. Brumbaugh, M. D	Do.
Division of nurses	*Alma H. Brunk, R. N	Do.
Oshkosh	I. A. Ihrke, M. D	Health commissioner.

City	Name of health officer	Official title
Wisconsin—Continued.		
Racine	*I. F. Thompson, M. D., M. P. H.	Commissioner of health.
Sheboygan	*Gustav J. Hildebrand, M. D.	Commissioner of public health.
Shorewood	Jerome M. Jekel, M. D.	Health officer.
South Milwaukee	Robert D. Moray, M. D.	Health commissioner.
Stevens Point	Ferdinand R. Krembs, M. D.	Health officer.
Superior	*Charles H. Mason, M. D.	Health commissioner.
Two Rivers	Alfred P. Zlatnik, M. D.	Commissioner of health.
Watertown	E. W. Bowen, M. D.	Health commissioner.
Waukesha	Frank M. Scheele, M. D.	Do.
Wausau	*L. F. Bugbee	Health officer.
Wauwatosa	Roy T. Hansen, M. D.	Commissioner of health.
West Allis	*Frank H. Russell, M. D.	Health commissioner.
Wyoming:		
Casper	Joseph C. Kamp, M. D.	County health officer.
Cheyenne	W. R. Day, M. D.	County health officer and registrar of vital statistics.

DEATHS DURING WEEK ENDED SEPTEMBER 17, 1938

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

	Week ended Sept. 17, 1938	Corresponding week, 1937
Data from 88 large cities of the United States:		
Total deaths	7,480	[1] 6,816
Average for 3 prior years	[1] 6,927	
Total deaths, first 37 weeks of year	301,861	325,372
Deaths under 1 year of age	529	[1] 483
Average for 3 prior years	[1] 481	
Deaths under 1 year of age, first 37 weeks of year	19,592	21,019
Data from industrial insurance companies:		
Policies in force	68,288,474	69,840,308
Number of death claims	11,124	10,349
Death claims per 1,000 policies in force, annual rate	8.5	7.7
Death claims per 1,000 policies, first 37 weeks of year, annual rate	10.2	10.0

[1] Data for 86 cities.

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

In these and the following tables, a zero (0) indicates a positive report and has the same significance as any other figure, while leaders (----) represent no report, with the implication that cases or deaths may have occurred but were not reported to the State health officer.

Cases of certain diseases reported by telegraph by State health officers for the week ended Sept. 24, 1938, rates per 100,000 population (annual basis), and comparison with corresponding week of 1937 and 5-year median

Division and State	Diphtheria				Influenza				Measles			
	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933-37 median	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933-37 median	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933-37 median
NEW ENG.												
Maine	18	3	1	1	----	----	----	----	37	6	9	9
New Hampshire	0	0	0	0	----	----	----	----	----	----	1	----
Vermont	27	2	1	0	----	----	----	----	14	1	3	3
Massachusetts	5	4	2	5	----	----	----	----	32	27	11	11
Rhode Island	0	0	0	0	----	----	----	----	----	----	----	1
Connecticut	3	1	5	2	21	7	5	1	21	7	----	4
MID. ATL.												
New York	4	11	13	26	[1] 4	[1] 5	[1] 11	[1] 8	23	57	43	52
New Jersey	8	7	13	8	5	4	5	5	10	8	20	16
Pennsylvania	6	11	29	26	----	----	----	----	9	17	142	30
E. NO. CEN.												
Ohio	9	11	28	32	----	----	2	4	5	6	54	14
Indiana	30	20	13	33	23	15	12	14	----	----	6	6
Illinois	17	25	48	40	8	12	12	7	10	15	43	21
Michigan	10	9	22	12	----	----	3	1	30	28	18	10
Wisconsin	4	2	5	3	50	28	16	12	105	59	27	27
W. NO. CEN.												
Minnesota	18	9	3	6	----	----	----	1	29	15	3	10
Iowa	4	2	3	6	----	----	1	----	10	5	1	1
Missouri	18	14	14	44	20	15	26	38	8	6	18	9
North Dakota	22	3	1	5	15	2	5	1	273	37	1	2
South Dakota	60	8	1	1	----	----	----	----	8	1	----	1
Nebraska	19	5	3	3	----	----	----	----	----	----	3	1
Kansas	17	6	3	7	3	1	1	----	11	4	14	5
SO. ATL.												
Delaware	0	0	0	0	----	----	----	----	----	----	----	2
Maryland [2] [3]	22	7	17	13	22	7	6	5	31	10	4	5
Dist. of Col	33	4	4	10	17	2	----	----	8	1	1	1
Virginia [3]	96	50	41	35	164	85	----	----	12	6	5	6

See footnotes at end of table.

Cases of certain diseases reported by telegraph by State health officers for the week ended Sept. 24, 1938, rates per 100,000 population (annual basis), and comparison with corresponding week of 1937 and 5-year median—Continued

Division and State	Diphtheria				Influenza				Measles			
	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933–37 median	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933–37 median	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933–37 median
SO. ATL.—Continued.												
West Virginia	45	16	27	43	36	13	24	20	14	5	25	10
North Carolina [4]	184	123	110	81	------	------	1	5	39	26	41	17
South Carolina [4]	106	38	21	21	590	212	135	132	8	3	2	2
Georgia [4]	117	69	30	34	34	20	------	------	20	12	------	------
Florida [4]	31	10	12	8	------	------	------	1	69	22	------	1
E. SO. CEN.												
Kentucky	48	27	25	36	36	20	10	1	5	3	33	12
Tennessee [4]	81	45	37	56	68	38	17	15	18	10	19	3
Alabama [4]	92	51	43	54	54	30	9	10	61	34	1	3
Mississippi [3]	44	17	30	25	------	------	------	------	------	------	------	------
W. SO. CEN.												
Arkansas	64	25	25	11	33	13	8	4	3	1	2	2
Louisiana [4]	39	16	13	16	5	2	3	7	27	11	1	6
Oklahoma	31	15	5	7	51	25	17	13	6	3	1	1
Texas [4]	28	33	46	46	46	54	99	38	3	4	42	7
MOUNTAIN												
Montana	10	1	3	2	68	7	------	4	464	48	3	2
Idaho	0	0	2	2	------	------	------	1	42	4	2	------
Wyoming	44	2	0	0	------	------	------	------	44	2	2	2
Colorado	63	13	7	5	------	------	------	------	29	6	7	7
New Mexico	74	6	2	2	------	------	1	1	49	4	6	6
Arizona	76	6	7	2	354	28	10	8	51	4	1	1
Utah [3]	0	0	10	0	151	15	2	------	40	4	8	2
PACIFIC												
Washington	6	2	1	1	------	------	2	------	25	8	10	10
Oregon	10	2	1	1	15	3	11	11	36	7	4	5
California	24	28	33	31	9	11	17	17	141	167	27	44
Total	31	759	760	760	34	674	471	460	29	704	664	541
38 weeks	18	17,399	16,195	21,427	64	48,389	276,296	143,202	824	763,765	244,478	344,248

Division and State	Meningitis, meningococcus				Poliomyelitis				Scarlet fever			
	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933–37 median	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933–37 median	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933–37 median
NEW ENG.												
Maine	0	0	0	0	0	0	6	6	12	2	5	7
New Hampshire	0	0	0	0	0	0	1	0	31	3	0	3
Vermont	0	0	0	0	0	0	3	1	82	6	1	4
Massachusetts	0	0	1	1	1.2	1	21	19	47	40	51	55
Rhode Island	0	0	0	0	0	0	2	1	8	1	5	12
Connecticut	0	0	1	1	0	0	11	10	36	12	17	15
MID. ATL.												
New York	1.6	4	2	2	2.0	5	61	61	30	74	99	112
New Jersey	0	0	2	2	4	3	21	21	28	23	26	26
Pennsylvania	1.5	3	5	3	4	8	66	12	62	121	125	122
E. NO. CEN.												
Ohio	0	0	3	3	0.8	1	28	20	69	89	111	122
Indiana	1.5	1	1	1	0	0	10	3	56	37	60	60
Illinois	0	0	4	4	4	6	66	12	72	109	156	156
Michigan	0	0	3	1	4	4	63	20	135	125	144	88
Wisconsin	0	0	2	1	11	6	44	[illegible]	112	63	46	76

See footnotes at end of table.

Cases of certain diseases reported by telegraph by State health officers for the week ended Sept. 24, 1938, rates per 100,000 population (annual basis), and comparison with corresponding week of 1937 and 5-year median—Continued

Division and State	Meningitis, meningococcus				Poliomyelitis				Scarlet fever			
	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933-37 median	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933-37 median	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933-37 median
W. NO. CEN.												
Minnesota	0	0	4	1	8	4	53	6	69	35	32	38
Iowa	0	0	0	0	4	2	31	5	37	18	36	36
Missouri	1.3	1	0	0	4	3	33	2	58	44	75	49
North Dakota [3]	7	1	0	0	0	[5]0	1	2	66	9	5	12
South Dakota	0	0	0	0	15	2	6	2	23	3	6	4
Nebraska	4	1	0	0	0	0	7	1	23	6	6	13
Kansas	6	2	1	0	0	0	36	5	131	47	64	48
SO. ATL.												
Delaware	0	0	0	0	0	0	1	0	20	1	0	2
Maryland [2] [3]	3	1	1	1	3	1	9	5	31	10	19	19
Dist. of Col	0	0	0	0	17	2	6	1	58	7	7	8
Virginia [3]	1.9	1	1	2	4	2	4	3	58	30	21	21
West Virginia	11	4	2	2	0	0	3	4	129	46	47	61
North Carolina [4]	0	0	1	1	1.5	1	1	1	87	58	54	57
South Carolina [4]	6	2	1	0	2.8	1	0	0	28	10	9	9
Georgia [4]	0	0	0	0	1.7	1	1	2	30	18	34	15
Florida [4]	3	1	1	0	0	0	2	0	19	6	3	3
E. SO. CEN.												
Kentucky	4	2	3	1	0	0	5	1	118	66	58	58
Tennessee [4]	4	2	2	1	1.8	1	1	1	59	33	33	43
Alabama [4]	4	2	2	2	7	4	1	1	32	18	17	18
Mississippi [3]	3	1	1	1	0	0	9	1	13	5	7	15
W. SO. CEN.												
Arkansas	0	0	0	0	2.5	1	12	1	28	11	9	6
Louisiana [4]	0	0	0	0	0	0	5	1	10	4	10	13
Oklahoma	0	0	1	0	0	0	13	0	39	19	15	10
Texas [4]	0	0	4	0	0	0	17	2	24	28	23	23
MOUNTAIN												
Montana	10	1	0	0	19	2	4	3	0	0	27	27
Idaho	21	2	0	0	11	1	2	0	85	8	12	9
Wyoming	0	0	0	0	0	0	8	2	22	1	9	4
Colorado	0	0	1	1	0	0	9	2	63	13	10	15
New Mexico	0	0	0	0	12	1	1	1	86	7	2	2
Arizona	0	0	0	0	0	0	0	0	114	9	4	5
Utah [3]	0	0	0	0	0	0	2	1	20	2	81	10
PACIFIC												
Washington	0	0	0	0	3	1	6	5	35	11	16	18
Oregon	0	0	1	0	0	0	3	3	168	33	7	15
California	0	0	6	1	1.7	2	35	27	56	66	47	96
Total	1.3	32	57	57	2.7	66	730	314	56	1,387	1,671	1,800
38 weeks	2.5	2,317	4,446	4,446	1.4	[5]1,302	7,121	5,566	151	142,286	170,459	170,459

Division and State	Smallpox				Typhoid and paratyphoid fever				Whooping cough	
	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933-37 median	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933-37 median	Sept. 24, 1938, rate	Sept. 24, 1938, cases
NEW ENG.										
Maine	0	0	0	0	24	4	1	2	91	15
New Hampshire	0	0	0	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0	0	218	16
Massachusetts	0	0	0	0	1	1	8	3	77	65
Rhode Island	0	0	0	0	0	0	0	0	100	13
Connecticut	0	0	0	0	3	1	2	3	162	54

See footnotes at end of table.

Cases of certain diseases reported by telegraph by State health officers for the week ended Sept. 24, 1938, rates per 100,000 population (annual basis), and comparison with corresponding week of 1937 and 5-year median—Continued

Division and State	Smallpox				Typhoid and paratyphoid fever				Whooping cough	
	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933-37 median	Sept. 24, 1938, rate	Sept. 24, 1938, cases	Sept. 25, 1937, cases	1933-37 median	Sept. 24, 1938, rate	Sept. 24, 1938, cases
MID ATL.										
New York	0	0	0	0	9	23	20	31	190	472
New Jersey	0	0	0	0	6	5	11	11	208	173
Pennsylvania	0	0	0	0	8	16	51	51	134	261
E. NO. CEN.										
Ohio	1	1	0	0	9	12	27	30	50	65
Indiana	9	6	0	0	5	3	5	15	12	8
Illinois	0	0	0	0	13	19	22	29	224	338
Michigan	1	1	2	0	15	14	12	15	314	291
Wisconsin	0	0	0	1	5	3	4	3	583	327
W. NO. CEN.										
Minnesota	2	1	3	0	8	4	8	3	77	39
Iowa	2	1	0	0	6	3	7	7	37	18
Missouri	1	1	0	0	18	14	22	21	34	26
North Dakota	0	0	6	1	22	3	2	3	126	17
South Dakota	30	4	0	0	0	0	2	2	23	3
Nebraska	4	1	2	0	11	3	1	1	31	8
Kansas	0	0	0	0	14	5	7	9	84	30
SO. ATL.										
Delaware	0	0	0	0	0	0	1	1	20	1
Maryland [2] [3]	0	0	0	0	40	13	18	18	90	29
Dist of Col	0	0	0	0	25	3	0	2	58	7
Virginia	0	0	0	0	46	24	22	26	79	41
West Virginia	0	0	0	0	59	21	10	24	109	39
North Carolina [4]	0	0	0	0	22	15	18	18	220	147
South Carolina [4]	0	0	0	0	39	14	14	20	159	57
Georgia [4]	0	0	0	0	25	15	15	23	17	10
Florida [4]	0	0	0	0	19	6	4	4	94	30
E. SO. CEN.										
Kentucky	0	0	0	0	32	18	38	38	39	22
Tennessee [4]	2	1	0	0	38	21	14	38	47	26
Alabama [4]	0	0	0	0	27	15	7	28	85	47
Mississippi [2]	0	0	0	0	3	1	6	6	------	------
W. SO. CEN.										
Arkansas	0	0	0	0	38	15	22	9	41	16
Louisiana [4]	0	0	0	0	29	12	26	23	64	26
Oklahoma	0	0	1	0	31	15	12	21	6	3
Texas [4]	1	1	0	0	38	45	64	48	63	74
MOUNTAIN										
Montana	87	9	5	1	19	2	1	7	193	20
Idaho	0	0	1	0	11	1	0	4	32	3
Wyoming	0	0	0	0	44	2	0	0	67	3
Colorado	10	2	0	0	73	15	27	10	263	54
New Mexico	0	0	0	0	173	14	15	15	111	9
Arizona	0	0	0	0	13	1	2	2	127	10
Utah [2]	0	0	0	0	10	1	1	1	181	13
PACIFIC										
Washington	6	2	25	4	19	6	6	5	60	19
Oregon	41	8	1	1	15	3	2	4	76	15
California	3	3	3	1	11	13	21	16	148	175
Total	2	42	49	24	18	444	578	697	129	3,140
38 weeks	14	12,894	8,233	5,451	12	10,890	11,192	12,801	174	161,455

[1] New York City only.
[2] Period ended earlier than Saturday.
[3] Rocky Mountain spotted fever, week ended September 24, 1938, 2 cases, as follows: Maryland, 1; Virginia, 1.
[4] Typhus fever, week ended Sept. 24, 1938, 77 cases, as follows: North Carolina, 3; South Carolina, 8 Georgia, 31; Florida, 10; Tennessee, 1; Alabama, 13; Louisiana, 1; Texas, 10.
[5] Later information states that a case reported as poliomyelitis in North Dakota, week ended Aug. 20, 1938, Public Health Reports, Sept. 2, 1938, p. 1582, was not poliomyelitis, but epidemic encephalitis.

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week:

State	Meningitis, meningococcus	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
August 1938										
Colorado	7	76	96		29		1	45	12	21
Florida	2	27	2	45	25	21	3	8	0	20
Georgia	1	149	31	569	63	124	5	40	0	153
Idaho	1	4	14		23		2	12	4	12
Illinois	5	58	13	58	115		34	290	19	110
Iowa	5	18	7	1	60		11	62	10	35
Kansas	1	8	4	6	28		2	142	4	43
Maine	1	6	13		38		2	9	0	8
Minnesota	1	26	10		125		14	89	13	4
Mississippi	2	69	1 242	7,831	179	491	7	33	0	39
Montana [1]	4	3	36		97		7	30	2	5
Oklahoma	0	24	145	193	21	16	3	33	2	77
Rhode Island	1	1			12		1	9	0	9
South Dakota	1	4	21	1	18		7	26	6	6
Tennessee	10	47	35	275	83	38	5	57	2	120

[1] Delayed report of the following cases for the month of July 1938 has been received from Montana: Influenza, 4; measles, 1; tetanus, 1; whooping cough, 3.

August 1938

	Cases
Chickenpox:	
Colorado	13
Florida	5
Georgia	2
Idaho	11
Illinois	80
Iowa	9
Kansas	15
Maine	18
Minnesota	33
Mississippi	105
Montana	17
Rhode Island	10
South Dakota	3
Tennessee	9
Colorado tick fever:	
Colorado	2
Conjunctivitis, infectious:	
Georgia	2
Dengue:	
Florida	1
Dysentery:	
Colorado (amoebic)	4
Colorado (bacillary)	3
Florida (bacillary)	1
Georgia (amoebic)	12
Georgia (bacillary)	30
Illinois (amoebic)	5
Illinois (bacillary)	63
Illinois (amoebic carriers)	11
Iowa (bacillary)	2
Kansas (amoebic)	1
Minnesota (amoebic)	4
Minnesota (bacillary)	19
Mississippi (amoebic)	120
Mississippi (bacillary)	715
Montana (bacillary)	1
Oklahoma (amoebic)	3
Oklahoma (bacillary)	25
Rhode Island (bacillary)	1
Tennessee (amoebic)	2
Tennessee (bacillary)	45
Encephalitis, epidemic or lethargic:	
Colorado	42
Idaho	2
Illinois	4
Iowa	4
Encephalitis, epidemic or lethargic—Continued.	Cases
Kansas	10
Minnesota	9
Montana	32
South Dakota	3
Tennessee	1
German measles:	
Illinois	10
Kansas	1
Maine	8
Montana	6
Rhode Island	2
Hookworm disease:	
Florida	125
Georgia	400
Mississippi	648
Tennessee	1
Impetigo contagiosa:	
Illinois	33
Montana	4
Tennessee	15
Leprosy:	
Georgia	1
Mumps:	
Colorado	9
Florida	13
Georgia	30
Idaho	17
Illinois	130
Iowa	45
Kansas	50
Maine	23
Mississippi	101
Montana	12
Oklahoma	5
Rhode Island	3
South Dakota	10
Tennessee	18
Ophthalmia neonatorum:	
Illinois	6
Mississippi	4
Tennessee	3
Paratyphoid fever:	
Colorado	1
Georgia	5
Illinois	11
Kansas	7
Paratyphoid fever—Contd.	Cases
Maine	2
Tennessee	9
Puerperal septicemia:	
Georgia	1
Idaho	1
Mississippi	26
Tennessee	2
Rabies in animals:	
Florida	3
Illinois	41
Minnesota	19
Mississippi	9
Rhode Island	2
Rabies in man:	
Kansas	1
Rocky Mountain spotted fever:	
Idaho	5
Illinois	6
Iowa	1
Tennessee	3
Septic sore throat:	
Colorado	10
Florida	2
Georgia	49
Idaho	2
Illinois	5
Iowa	1
Kansas	7
Minnesota	7
Montana	3
Oklahoma	49
Rhode Island	7
South Dakota	3
Tennessee	3
Tetanus:	
Florida	3
Georgia	1
Idaho	1
Illinois	3
Minnesota	1
Oklahoma	1
Tennessee	2
Trachoma:	
Illinois	58
Minnesota	2
Mississippi	6
Oklahoma	1

Summary of monthly reports from States—Continued

August 1938—Continued

Tularaemia:	Cases
Georgia	2
Illinois	6
Kansas	3
Minnesota	1
Oklahoma	2
Tennessee	5
Typhus fever:	
Florida	12
Georgia	133
Mississippi	6
Tennessee	2
Undulant fever:	
Colorado	3
Florida	6
Georgia	13
Illinois	38

Undulant fever—Contd.	Cases
Iowa	25
Kansas	20
Maine	2
Minnesota	8
Mississippi	2
Oklahoma	119
South Dakota	1
Tennessee	2
Vincent's infection:	
Florida	34
Idaho	1
Illinois	12
Kansas	16
Maine	1
Montana	2
Oklahoma	4
Tennessee	6

Whooping cough:	Cases
Colorado	210
Florida	45
Georgia	106
Idaho	17
Illinois	2,242
Iowa	134
Kansas	232
Maine	101
Minnesota	249
Mississippi	704
Montana	260
Oklahoma	43
Rhode Island	99
South Dakota	53
Tennessee	169

PLAGUE INFECTION IN NEW MEXICO

Under date of September 20, 1938, Senior Surgeon C. R. Eskey reported plague infection proved in prairie dogs (*Cynomys gunnisoni zuniensis*) and in fleas from prairie dogs in Catron County as follows:

In one prairie dog found dead, September 1, 1938, 1 mile north of Adams Diggings; in 1 prairie dog found dead 4½ miles southwest of Adams Diggings; in a pool of tissue from 4 prairie dogs shot September 1, 1938, 1 mile northeast of Adams Diggings; and in a pool of 60 fleas from the 6 prairie dogs mentioned above.

CASES OF VENEREAL DISEASES REPORTED FOR JULY 1938

These reports are published monthly for the information of health officers in order to furnish current data as to the prevalence of the venereal diseases. The figures are taken from reports received from State and city health officers. They are preliminary and are therefore subject to correction. It is hoped that the publication of these reports will stimulate more complete reporting of these diseases.

Reports from States

	Syphilis		Gonorrhea	
	Cases reported during month	Monthly case rates per 10,000 population	Cases reported during month	Monthly case rates per 10,000 population
Alabama	2,339	8.08	316	1.09
Arizona [1]				
Arkansas	998	4.87	291	1.42
California	1,571	2.55	1,188	1.93
Colorado	293	2.74	157	1.47
Connecticut	175	1.01	86	.49
Delaware	331	12.68	68	2.61
District of Columbia	218	3.48	208	3.32
Florida	708	4.24	65	.39
Georgia	2,883	9.35	440	1.43
Idaho	32	.65	20	.41
Illinois	2,452	3.11	1,210	1.54
Indiana	274	.79	115	.33
Iowa	252	.99	177	.69
Kansas	171	.92	106	.57
Kentucky	583	2.00	299	1.02
Louisiana	761	3.57	107	.50
Maine	47	.55	45	.53
Maryland	1,018	6.06	284	1.69
Massachusetts	388	.88	354	.80
Michigan	950	1.97	614	1.27
Minnesota	315	1.19	199	.75
Mississippi	2,478	12.25	2,472	12.22
Missouri	842	2.11	466	1.17
Montana	32	.59	26	.48

See footnotes at end of table.

Reports from States—Continued

	Syphilis		Gonorrhea	
	Cases reported during month	Monthly cases rates per 10,000 population	Cases reported during month	Monthly case rates per 10,000 population
Nebraska	48	.35	49	.36
Nevada	16	1.58	20	1.98
New Hampshire	33	.65	15	.29
New Jersey	968	2.23	301	.69
New Mexico	61	1.45	13	.31
New York	5,449	4.20	1,837	1.42
North Carolina	4,158	11.91	575	1.65
North Dakota	134	1.90	51	.72
Ohio	1,464	2.17	353	.52
Oklahoma	458	1.80	298	1.17
Oregon	86	.84	125	1.22
Pennsylvania	1,358	1.33	213	.21
Rhode Island	99	1.45	51	.75
South Carolina [1]				
South Dakota	23	.33	27	.39
Tennessee	1,141	3.94	455	1.57
Texas	846	1.37	395	.64
Utah	16	.31	19	.37
Vermont	27	.70	26	.68
Virginia	1,204	4.45	266	.98
Washington	345	2.08	324	1.95
West Virginia	436	2.34	144	.77
Wisconsin	54	.18	96	.33
Wyoming [2]				
Total	38,535	3.04	14,966	1.18

Reports from cities of 200,000 population or over

Akron, Ohio [2]				
Atlanta, Ga	340	11.84	67	2.33
Baltimore, Md	630	7.63	205	2.48
Birmingham, Ala	333	11.80	70	2.48
Boston, Mass	126	1.59	128	1.62
Buffalo, N. Y	166	2.80	36	.61
Chicago, Ill.[1]				
Cincinnati, Ohio	219	4.70	79	1.70
Cleveland, Ohio	213	2.29	111	1.19
Columbus, Ohio	54	1.77	18	.59
Dallas, Tex.[1]				
Dayton, Ohio [1]				
Denver, Colo.[1]				
Detroit, Mich	443	2.56	290	1.68
Houston, Tex.[1]				
Indianapolis, Ind	26	.69	28	.74
Jersey City, N. J	33	1.03	11	.34
Kansas City, Mo	72	1.71	6	.14
Los Angeles, Calif	705	4.93	390	2.72
Louisville, Ky	241	7.44	95	2.93
Memphis, Tenn	304	11.39	82	3.07
Milwaukee, Wis.[2]				
Minneapolis, Minn	56	1.15	51	1.05
Newark, N. J.[1]				
New Orleans, La.[1]				
New York, N. Y	4,304	5.89	1,337	1.83
Oakland, Calif.[1]				
Omaha, Nebr	31	1.41	18	.82
Philadelphia, Pa	553	2.78		
Pittsburgh, Pa	237	3.46	26	.38
Portland, Oreg	54	1.72	55	1.75
Providence, R. I	59	2.28	28	1.08
Rochester, N. Y	20	.59	46	1.36
St. Louis, Mo	492	5.88	370	4.43
St. Paul, Minn	53	1.88	19	.67
San Antonio, Tex	102	4.06	55	2.19
San Francisco, Calif	116	1.73	191	2.85
Seattle, Wash	102	2.69	98	2.58
Syracuse, N. Y	62	2.84	10	.46
Toledo, Ohio [1]				
Washington, D. C.[3]	218	3.48	208	3.32

[1] No report for current month. [2] Not reporting. [3] Reported by Social Hygiene Clinic.

94357°—38——3

ANNUAL CASE RATES PER 1,000 POPULATION FOR SYPHILIS AND GONORRHEA, FISCAL YEAR 1938

This statement is based on monthly reports received from State and city departments of health.

Rates for States

	Annual rates per 1,000 population			Annual rates per 1,000 population	
	Syphilis	Gonorrhea		Syphilis	Gonorrhea
Alabama	7.35	1.43	Nebraska	0.67	0.86
Arizona	1.99	2.60	Nevada	4.20	1.29
Arkansas	5.62	1.78	New Hampshire	.49	.33
California	3.78	3.07	New Jersey	2.44	.83
Colorado	1.22	.67	New Mexico	3.48	1.19
Connecticut	1.56	.84	New York	6.66	1.96
Delaware	10.82	2.26	North Carolina	11.19	2.11
District of Columbia	4.16	3.32	North Dakota	.64	.71
Florida	14.19	1.76	Ohio	2.64	.76
Georgia	7.63	1.69	Oklahoma	2.26	1.64
Idaho	1.11	.81	Oregon	1.22	2.20
Illinois	3.08	1.84	Pennsylvania	2.07	.29
Indiana	1.09	.36	Rhode Island	1.76	.96
Iowa	1.54	.96	South Carolina	2.37	2.23
Kansas	1.34	.54	South Dakota	.59	.45
Kentucky	2.79	1.40	Tennessee	4.11	1.62
Louisiana	4.17	.58	Texas	3.22	.98
Maine	.78	.79	Utah	.29	.49
Maryland	7.27	2.22	Vermont	.56	.83
Massachusetts	1.33	1.22	Virginia	4.87	1.43
Michigan	2.56	1.52	Washington	2.29	2.51
Minnesota	1.29	1.11	West Virginia	2.32	.70
Mississippi	13.26	14.61	Wisconsin	.27	.51
Missouri	1.91	.65	Wyoming [1]		
Montana	1.26	.78			

Rates for cities

Akron, Ohio [2]			Milwaukee, Wis. [1]		
Atlanta, Ga. [3]	10.37	5.48	Minneapolis, Minn. [3]	1.88	1.87
Baltimore, Md	9.03	2.86	Newark, N. J. [2]	7.96	3.35
Birmingham, Ala	11.69	3.24	New Orleans, La. [3]	1.58	1.10
Boston, Mass	2.89	2.45	New York, N. Y	9.45	2.46
Buffalo, N. Y	3.22	1.47	Oakland, Calif. [3]	2.48	2.07
Chicago, Ill	3.69	2.62	Omaha, Nebr	2.14	1.82
Cincinnati, Ohio [2]	5.51	2.03	Philadelphia, Pa. [3]	3.26	
Cleveland, Ohio	3.17	1.19	Pittsburgh, Pa	3.59	.48
Columbus, Ohio	3.21	.76	Portland, Oreg. [3]	1.73	2.96
Dallas, Tex	11.14	3.36	Providence, R. I. [3]	2.57	1.42
Dayton, Ohio	4.37	.57	Rochester, N. Y	1.52	1.68
Denver, Colo. [3]	2.43	1.59	St. Louis, Mo	4.03	2.08
Detroit, Mich. [3]	3.42	1.99	St. Paul, Minn. [3]	1.40	1.04
Houston, Tex. [3]	7.31	1.86	San Antonio, Tex. [3]	5.43	3.14
Indianapolis, Ind. [3]	.82	.99	San Francisco, Calif	3.27	3.80
Jersey City, N. J. [3]	1.34	.35	Seattle, Wash	4.49	4.36
Kansas City, Mo	2.14	.15	Syracuse, N. Y. [3]	4.56	2.38
Los Angeles, Calif. [3]	5.52	3.75	Toledo, Ohio [3]	6.03	2.09
Louisville, Ky	10.66	4.42	Washington, D. C. [3]	4.16	3.32
Memphis, Tenn	14.05	3.96			

[1] Not reporting.
[2] Based on reports for only a part of the fiscal year.
[3] Reports submitted by Social Hygiene Clinic.

WEEKLY REPORTS FROM CITIES

City reports for week ended Sept. 17, 1938

This table summarizes the reports received weekly from a selected list of 140 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table.

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Data for 90 cities:											
5-year average	138	61	17	121	310	368	3	341	89	954	--------
Current week [1]	88	36	6	167	289	325	2	247	73	1,471	--------
Maine:											
Portland	0	------	0	1	2	0	0	0	0	0	25
New Hampshire:											
Concord	0	------	0	0	0	0	0	0	0	0	6
Manchester	0	------	0	0	0	0	0	0	0	0	7
Nashua	0	------	0	0	1	0	0	1	0	0	9
Vermont:											
Barre	0	------	0	0	0	0	0	0	0	0	1
Burlington	0	------	0	0	0	0	0	0	0	1	8
Rutland	0	------	0	0	0	0	0	0	0	0	3
Massachusetts:											
Boston	0	------	0	1	11	12	0	13	3	14	199
Fall River	0	------	0	0	1	1	0	2	0	3	31
Springfield	0	------	0	0	0	0	0	1	0	1	35
Worcester	1	------	0	1	3	1	0	0	0	15	50
Rhode Island:											
Pawtucket	0	------	0	0	3	0	0	1	0	0	15
Providence	0	------	0	2	3	0	0	2	1	5	59
Connecticut:											
Bridgeport	0	------	0	0	1	1	0	0	0	0	38
Hartford	0	------	0	0	1	4	0	1	0	3	55
New Haven	0	------	0	0	1	0	0	1	2	14	30
New York:											
Buffalo	0	------	0	2	9	9	0	9	0	13	119
New York	16	4	0	19	47	15	0	66	12	343	1,273
Rochester	0	1	0	0	4	1	0	1	1	9	59
Syracuse	0	------	0	0	3	3	0	0	1	16	38
New Jersey:											
Camden	0	------	0	1	1	1	0	0	0	1	27
Newark	0	------	0	6	1	1	0	9	0	58	94
Trenton	0	------	0	1	1	2	0	3	0	1	41
Pennsylvania:											
Philadelphia	2	1	1	1	10	15	0	23	3	112	411
Pittsburgh	4	------	0	0	4	17	0	12	1	22	136
Reading	2	------	0	1	0	0	0	0	0	0	18
Scranton	0	------	--------	0	-------	0	0	-------	0	0	--------
Ohio:											
Cincinnati	3	------	1	0	3	4	0	5	0	4	121
Cleveland	0	7	0	7	5	12	0	11	3	90	156
Columbus	1	1	1	0	2	2	0	4	0	0	76
Toledo	0	------	0	2	2	2	0	7	0	4	72
Indiana:											
Anderson	0	------	0	0	1	2	0	0	0	0	7
Fort Wayne	1	------	0	0	2	0	0	1	0	0	22
Indianapolis	2	------	0	2	4	11	0	3	0	7	102
Muncie	0	------	0	0	1	0	0	0	0	0	9
South Bend	0	------	0	1	1	0	0	0	0	0	17
Terre Haute	0	------	0	0	0	2	0	0	0	0	16
Illinois:											
Alton	0	------	0	0	0	0	0	1	0	0	15
Chicago	9	4	1	5	17	41	0	26	7	220	605
Elgin	0	------	0	0	0	0	0	0	0	0	9
Moline	0	------	0	0	0	1	2	0	0	0	8
Springfield	0	1	0	0	0	0	0	0	0	4	15
Michigan:											
Detroit	5	------	0	3	8	29	0	17	0	125	223
Flint	0	------	0	0	3	5	0	3	3	14	16
Grand Rapids	0	------	0	2	1	10	0	0	0	3	30
Wisconsin:											
Kenosha	0	------	0	0	1	2	0	0	0	4	2
Madison	0	------	0	2	0	0	0	0	0	8	12
Milwaukee	2	------	0	4	4	15	0	7	0	125	98
Racine	0	------	0	0	0	2	0	0	0	44	13
Superior	0	------	0	0	0	5	0	0	0	0	9

[1] Figures for Los Angeles, Calif., estimated; report not received.

City reports for week ended Sept. 17, 1938—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Minnesota:											
Duluth	0	------	0	0	3	3	0	1	0	2	18
Minneapolis	2	------	0	7	8	4	0	4	1	14	103
St. Paul	0	------	0	7	4	5	0	0	0	6	44
Iowa:											
Davenport	0	------	------	0	------	0	1	------	0	0	------
Des Moines	0	------	0	0	0	1	0	0	0	0	26
Sioux City	0	------	------	2	------	1	0	------	0	0	------
Waterloo	1	------	------	1	------	1	0	------	0	0	------
Missouri:											
Kansas City	1	------	0	0	3	5	0	6	0	2	90
St. Joseph	1	------	0	0	0	1	0	0	0	0	22
St. Louis	4	------	0	0	4	5	0	10	1	9	225
North Dakota:											
Fargo	0	------	0	7	0	2	0	0	0	0	4
Grand Forks	0	------	------	0	------	0	0	------	0	0	------
Minot	1	------	0	1	0	0	0	0	0	0	5
South Dakota:											
Aberdeen	0	------	------	0	------	0	0	------	0	0	------
Sioux Falls	0	------	0	0	0	0	0	0	0	0	12
Nebraska:											
Omaha	0	------	0	1	2	0	0	1	0	1	49
Kansas:											
Lawrence	0	------	0	0	0	0	0	0	0	0	1
Topeka	0	------	0	0	0	1	0	0	0	2	13
Wichita	1	------	0	0	4	2	0	2	1	3	30
Delaware:											
Wilmington	0	------	0	0	0	0	0	0	1	2	34
Maryland:											
Baltimore	1	1	0	9	11	3	0	11	2	30	187
Cumberland	0	------	0	0	0	0	0	0	0	0	12
Frederick	0	------	0	0	1	0	0	0	1	0	2
Dist. of Col.:											
Washington	0	------	0	1	8	8	0	11	6	5	315
Virginia:											
Lynchburg	1	------	0	0	1	0	0	0	0	0	7
Norfolk	0	------	0	0	2	1	0	1	0	0	17
Richmond	2	------	0	0	1	4	0	1	0	1	57
Roanoke	0	------	0	0	0	4	0	2	1	1	19
West Virginia:											
Charleston	0	------	0	0	2	1	0	0	2	1	26
Huntington	3	------	------	0	------	0	0	------	1	0	------
Wheeling	0	------	0	1	1	0	0	0	0	1	18
North Carolina:											
Gastonia	0	------	------	0	------	0	0	------	0	0	------
Raleigh	0	------	0	0	1	0	0	1	0	5	12
Wilmington	1	------	0	0	2	0	0	0	0	4	10
Winston-Salem	0	------	0	3	2	3	0	1	0	0	13
South Carolina:											
Charleston	0	5	0	0	4	0	0	3	1	0	21
Florence	0	------	0	0	2	0	0	1	0	1	13
Greenville	0	------	0	0	0	1	0	1	0	2	8
Georgia:											
Atlanta	7	2	0	0	6	3	0	4	0	10	84
Brunswick	0	------	0	0	1	0	0	0	0	0	6
Savannah	0	2	0	0	1	0	0	4	2	1	39
Florida:											
Miami	0	1	0	0	1	1	0	1	1	1	21
Tampa	1	------	0	0	1	0	0	1	1	1	21
Kentucky:											
Ashland	0	------	0	0	1	0	0	0	0	0	14
Covington	0	------	0	0	0	0	0	0	0	0	13
Lexington	3	------	0	2	0	2	0	0	0	0	18
Louisville	2	------	0	0	1	5	0	7	0	12	72
Tennessee:											
Knoxville	3	5	0	0	0	1	0	0	0	1	21
Memphis	1	------	1	0	3	0	0	2	1	0	77
Nashville	3	------	0	0	4	0	0	1	1	1	43
Alabama:											
Birmingham	0	------	0	0	4	2	0	2	0	0	57
Mobile	0	------	0	0	1	0	0	2	0	0	18
Montgomery	0	------	------	0	------	1	0	------	0	0	------
Arkansas:											
Fort Smith	1	1	------	0	------	0	0	------	2	0	------
Little Rock	0	------	0	0	2	0	0	0	0	2	------

City reports for week ended Sept. 17, 1938—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Louisiana:											
Lake Charles	0	------	0	1	1	0	0	1	0	0	4
New Orleans	0	------	0	4	19	1	0	14	2	10	154
Shreveport	0	------	0	0	3	0	0	2	0	0	22
Oklahoma:											
Oklahoma City	0	------	0	0	0	0	0	1	0	0	44
Texas:											
Dallas	0	------	0	0	3	4	0	2	2	1	55
Fort Worth	1	------	0	0	0	1	0	2	1	2	18
Galveston	0	------	0	0	2	0	0	2	0	0	11
Houston	2	------	0	0	4	1	0	5	2	0	73
San Antonio	3	------	0	0	1	1	0	8	1	0	52
Montana:											
Billings	0	------	0	0	0	0	0	0	1	2	16
Great Falls	0	------	1	0	0	0	0	0	1	0	7
Helena	0	------	0	0	0	0	0	0	0	0	3
Missoula	0	------	0	0	0	0	0	0	1	3	6
Idaho:											
Boise	0	------	0	0	1	0	0	0	0	0	5
Colorado:											
Colorado Springs	0	------	0	0	0	0	0	0	1	3	6
Denver	5	------	0	2	3	1	0	3	1	15	73
Pueblo	0	------	0	0	0	0	0	0	1	0	3
New Mexico:											
Albuquerque	0	------	0	0	0	1	0	6	0	0	16
Utah:											
Salt Lake City	0	------	0	1	1	5	0	0	0	8	26
Washington:											
Seattle	0	------	0	0	1	1	2	2	0	13	70
Spokane	0	------	0	1	0	0	0	0	0	1	26
Tacoma	0	------	0	0	1	1	0	0	1	0	24
Oregon:											
Portland	0	------	0	0	2	3	0	0	1	6	63
Salem	0	------	--------	0	-------	0	0	-------	0	0	--------
California:											
Los Angeles	4	6	0	33	8	19	0	15	0	26	284
Sacramento	0	0	0	2	0	1	0	0	1	4	25
San Francisco	0	1	0	28	3	11	0	4	0	14	149

State and city	Meningitis, meningococcus		Poliomyelitis cases	State and city	Meningitis, meningococcus		Poliomyelitis case
	Cases	Deaths			Cases	Deaths	
Massachusetts:				Minnesota:			
Springfield	1	0	0	Duluth	0	0	3
Worcester	1	0	0	Minneapolis	0	0	1
New York:				Missouri:			
Buffalo	1	1	0	St. Louis	1	0	0
New York	2	0	4	North Dakota:			
New Jersey:				Minot	1	0	0
Newark	0	0	1	Delaware:			
Pennsylvania:				Wilmington	1	0	0
Philadelphia	0	0	7	Maryland:			
Pittsburgh	1	1	0	Baltimore	1	0	1
Scranton	1	0	0	District of Columbia:			
Ohio:				Washington	0	0	5
Cleveland	0	0	2	Kentucky:			
Indiana:				Ashland	0	1	0
Indianapolis	1	1	0	Alabama:			
Illinois:				Birmingham	1	0	2
Chicago	1	0	1	Montgomery	0	0	1

Encephalitis, epidemic or lethargic.—Cases: Boston, 2; Providence, 1; New York, 1; St. Paul, 1; Sioux City, 1; St. Joseph, 1; St. Louis, 1; Minot, 3; Omaha, 1; Denver, 3; Sacramento, 1.

Pellagra.—Cases: Boston, 1; Atlanta, 4; Brunswick, 1; Savannah, 1; Memphis, 1; Montgomery 2; New Orleans, 1.

Typhus fever.—Cases: Charleston, S. C., 5; Atlanta, 1; Savannah, 1; Miami, 1; Fort Worth, 1.

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—2 weeks ended September 10, 1938.—During the 2 weeks ended September 10, 1938, cases of certain communicable diseases were reported by the Department of Pensions and National Health of Canada, as follows:

Disease	Prince Edward Island	Nova Scotia[1]	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Cerebrospinal meningitis				1	3				1	5
Chickenpox		5		22	23	15	10	4	46	125
Diphtheria		7	2	43	6	7	21	4		90
Dysentery					17				15	32
Erysipelas				5	4	1			1	11
Influenza		9			3		1		2	15
Lethargic encephalitis				1			7		1	9
Measles		1		11	46	3	3	1	6	71
Mumps					20	10	2	13	3	48
Paratyphoid fever					6			1	3	10
Pneumonia					16				6	22
Poliomyelitis			7	5	26	28	5	9	6	86
Scarlet fever		10	11	66	68	24	11	35	12	237
Trachoma							1			1
Tuberculosis	8	9	17	105	90	2	2	1	15	249
Typhoid fever		3	7	37	13	3	4	13		80
Undulant fever					3				1	4
Whooping cough		3	1	119	322	31	19	6	69	570

[1] For 2 weeks ended Sept. 14, 1938.

Vital statistics—First quarter 1938.—The Bureau of Statistics of the Dominion of Canada has published the following preliminary statistics for the first quarter of 1938. The rates are computed on an annual basis. There were 19.8 live births per 1,000 population during the first quarter of 1938 and 19.4 per 1,000 population during the first quarter of 1937. The death rate was 10.3 per 1,000 population for the first quarter of 1938 and 11.8 per 1,000 population for the first quarter of 1937. The infant mortality rate for the first quarter of 1938 was 72 per 1,000 live births and 87 per 1,000 live births for the first quarter of 1937. The maternal death rate was 4.4 per 1,000 live births for the first quarter of 1938 and 5.6 per 1,000 live births for the same quarter of 1937.

The accompanying tables give the numbers of births, deaths, and marriages, by Provinces, for the first quarter of 1938 and deaths by causes in Canada for the first quarter of 1938 and the corresponding quarter of 1937.

Number of births, deaths, and marriages, first quarter 1938

Province	Live births	Deaths (exclusive of still-births)	Deaths under 1 year of age	Maternal deaths	Marriages
Canada [1]	54,711	28,395	3,939	243	12,684
Prince Edward Island	463	294	44	2	96
Nova Scotia	2,765	1,652	200	13	727
New Brunswick	2,696	1,293	231	14	506
Quebec	18,813	8,863	1,851	99	3,061
Ontario	15,782	9,835	848	63	4,676
Manitoba	3,242	1,457	172	8	842
Saskatchewan	4,264	1,492	213	11	703
Alberta	3,699	1,616	237	14	1,093
British Columbia	2,987	1,893	143	19	980

[1] Exclusive of Yukon and the Northwest Territories.

Deaths by cause, first quarter 1938

Cause of death	Canada [1] (first quarter)		Province								
	1937	1938	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
Automobile accidents	225	230	1	12	13	32	118	8	2	15	29
Cancer	2,942	2,868	34	159	100	793	1,080	176	140	158	228
Cerebral hemorrhage, cerebral embolism and thrombosis	562	542	6	50	49	120	222	19	23	25	28
Diarrhea and enteritis	395	456	2	17	11	271	74	22	28	20	11
Diphtheria	76	120	------	7	8	85	6	1	6	6	1
Diseases of the arteries	2,691	2,570	19	163	87	478	1,261	146	124	108	184
Diseases of the heart	4,689	4,752	41	255	192	1,112	1,997	263	262	257	373
Homicides	40	34	------	1	------	9	13	2	4	5	------
Influenza	3,392	1,053	5	57	22	449	271	62	55	87	45
Measles	313	95	------	9	4	40	8	1	8	18	7
Nephritis	1,839	1,741	13	83	53	794	508	62	63	75	90
Pneumonia	2,876	2,570	55	183	171	739	845	130	144	172	131
Poliomyelitis	9	13	------	1	1	4	2	1	1	2	1
Puerperal causes	297	243	2	13	14	99	63	8	11	14	19
Scarlet fever	86	78	------	3	------	34	16	4	7	14	------
Smallpox	1	2	------	1	------	1	------	------	------	------	------
Suicides	225	219	------	9	8	33	89	13	15	18	34
Tuberculosis	1,785	1,521	16	96	76	666	300	76	76	63	152
Typhoid fever and paratyphoid fever	42	62	1	2	3	43	7	------	1	2	3
Violence	954	987	5	49	37	232	396	51	45	76	96
Other specified causes	------	7,889	87	455	394	2,659	2,529	398	464	467	436
Unspecified or ill-defined causes	------	195	7	24	50	58	16	6	9	10	15
Whooping cough	195	155	------	3	------	112	14	8	4	4	10

[1] Exclusive of Yukon and the Northwest Territories.

GREAT BRITAIN

England and Wales—Infectious diseases—13 weeks ended July 2, 1938.—During the 13 weeks ended July 2, 1938, cases of certain infectious diseases were reported in England and Wales, as follows:

Disease	Cases	Disease	Cases
Diphtheria	13,128	Puerperal pyrexia	2,405
Dysentery	653	Scarlet fever	24,829
Ophthalmia neonatorum	1,332	Smallpox	4
Pneumonia	13,177	Typhoid fever	244

England and Wales—Vital statistics—Second quarter 1938.—During the second quarter ended June 30, 1938, 164,257 live births and 119,177 deaths were registered in England and Wales. The following statistics are taken from the Quarterly Return of Births, Deaths, and Marriages, issued by the Registrar General of England and Wales, and are provisional:

Birth and death rates in England and Wales, quarter ended June 30, 1938

Annual rates per 1,000 population:	
Live births	16.10
Stillbirths	.65
Deaths, all causes	11.70
Deaths under 1 year of age	[1] 48
Deaths from:	
Diarrhea and enteritis (under 2 years of age)	[1] 4.40
Diphtheria	.06
Influenza	.14
Measles	.06
Scarlet fever	.01
Typhoid fever and paratyphoid fever	.00
Violence	.51
Whooping cough	.03

[1] Per 1,000 live births.

IRISH FREE STATE

Vital statistics—Quarter ended June 30, 1938.—The following vital statistics for the Irish Free State for the quarter ended June 30, 1938, are taken from the Quarterly Return of Marriages, Births, and Deaths, issued by the Registrar General and are provisional:

	Number	Rate per 1,000 population		Number	Rate per 1,000 population
Marriages	3,423	4.7	Deaths from—Continued.		
Births	14,642	19.9	Influenza	137	0.2
Total deaths	9,812	13.4	Measles	30	----------
Deaths under 1 year of age	937	[1] 64	Puerperal sepsis	13	[1] 0.9
Deaths from:			Scarlet fever	27	----------
Cancer	855	1.2	Tuberculosis (all forms)	874	1.2
Diarrhea and enteritis (under 2 years)	114	----------	Typhoid fever	7	----------
Diphtheria	57	----------	Whooping cough	56	----------

[1] Per 1,000 live births.

SWEDEN

Notifiable diseases—July 1938.—During the month of July 1938, cases of certain notifiable diseases were reported in Sweden as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	2	Poliomyelitis	[1] 56
Diphtheria	2	Scarlet fever	1,717
Dysentery	4	Syphilis	29
Epidemic encephalitis	1	Typhoid fever	8
Gonorrhea	1,137	Undulant fever	19
Paratyphoid fever	88	Weil's disease	1

[1] Includes 4 cases nonparalytic at time of notification.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

NOTE.—A table giving current information of the world prevalence of quarantinable diseases appeared in the PUBLIC HEALTH REPORTS for September 30, 1938, pages 1759-1773. A similar cumulative table will appear in future issues of the PUBLIC HEALTH REPORTS for the last Friday of each month.

Cholera

China.—During the week ended September 17, 1938, cholera was reported in China as follows: Canton, 7 cases; Hong Kong, 17 cases; Macao, 31 cases; Shanghai, 209 cases; Swatow, 17 cases.

Korea.—During the week ended September 17, 1938, 35 cases of cholera were reported in the districts of Daido and Irintsu, Korea.

Plague

United States—New Mexico.—A report of plague infection in Catron County, New Mexico, appears on page 1806 of this issue of PUBLIC HEALTH REPORTS.

Typhus Fever

Libya—Garian.—For the week ended August 13, 1938, 1 case of typhus fever was reported in Garian, Libya.

Yellow Fever

Nigeria—Degema.—On September 1, 1938, 1 fatal case of yellow fever was reported in Degema, Nigeria.

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